REPORT RESUMES

ED 010 622 24

ATTRITION IN THE LIBERAL ARTS COLLEGE.

BY- DYSINGER, WENDELL S. HACKMAN, J. RICHARD
HANOVER COLL., IND.
REPORT NUMBER BR-5-0882 PUB DATE AUG 66
MACMURRAY COLL., JACKSONVILLE, ILL.
REPORT NUMBER CRP-2361
WITTENBERG UNIV., SPRINGFIELD, OHIO
CONTRACT OEC-4-10-169
EDRS PRICE MF-$0.27 HC-$6.04 151P.

DESCRIPTORS- *WITHDRAWAL, *RESEARCH METHODOLOGY, *DISCRIMINANT ANALYSIS, *COLLEGE STUDENTS HANOVER, INDIANA, JACKSONVILLE, ILLINOIS, SPRINGFIELD, OHIO

THREE COLLEGES JOINED IN A STUDY OF STUDENT WITHDRAWAL. THE HYPOTHESIS OF THE STUDY PROPOSED THAT SIGNIFICANT DIFFERENCES EXIST AMONG STUDENTS IN THEIR LEVELS OF COMMITMENT TO HIGHER EDUCATION AS THE MAJOR OPPORTUNITY OF POST-HIGH-SCHOOL YEARS. STUDENTS WITH HIGH LEVELS OF COMMITMENT FACE PROBLEMS AND EITHER SOLVE OR TOLERATE THEM, WHILE THOSE WITH LOW LEVELS OF COMMITMENT TEND TO FIND THE SAME PROBLEMS ADEQUATE REASONS FOR WITHDRAWAL. DATA WERE GATHERED FROM SEVERAL SOURCES AND ANALYZED. FOUR CATEGORIES OF STUDENTS (PERSISTERS, TRANSFERS AND RETURNEES, "REAL" VOLUNTARY DROPS, AND ACADEMIC DROPS) WERE DISCRIMINATED RELIABLY AND IN MEANINGFUL TERMS BY MULTIPLE DISCRIMINANT ANALYSIS. ATTRITION-PRONE STUDENTS WERE IDENTIFIED FROM THE RESULTS IN A REASONABLY HIGH PERCENTAGE OF THE CASES. (TC)

ED010622

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

NAA

(2361)

FINAL REPORT
Project 5-0882
Contract No. OE 4-10-169

ATTRITION IN THE LIBERAL ARTS COLLEGE

August 1966

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

Attrition in the Liberal Arts College

Project No. 5-0882
Contract No. OE 4-10-169

Wendell S. Dysinger

and

J. Richard Hackman

1966

The Research Committee on Student Persistence

Research Director:	Wendell S. Dysinger, McKendree College, formerly of MacMurray College
Research Associate:	J. Richard Hackman, Yale University, formerly of the University of Illinois
Research Consultant:	Paul L. Dressel, Michigan State University
Research Committee:	Harold J. Haverkamp, Hanover College, Hanover, Indiana William J. Lanier, Wittenberg University, Springfield, Ohio Allan O. Pfnister, Wittenberg University, Springfield, Ohio David E. Long, MacMurray College, Jacksonville, Illinois
Executive Secretary:	Virginia Gillespie, McKendree College, formerly of MacMurray College

---

The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Acknowledgements

This study of the withdrawal of students from college has been a cooperative project of three midwestern institutions: Hanover College, Hanover, Indiana; MacMurray College, Jacksonville, Illinois; and Wittenberg University, Springfield, Ohio.

The names of the members of the Research Committee are given on the title page. These men supervised the gathering of data on their respective campuses; they cooperated in the development of the project, making contributions which have been essential to the research program. The services of the Research Consultant, Paul L. Dressel, have been valuable both to the Research Committee and to the Research Director. He has served through the full period of the study.

A committee of members of the faculty and administrative staff of MacMurray College gave special service in classifying the answers to the open-ended question of the questionnaire. The committee consisted of the following members: Robert J. Berndt, Marjorie L. Gustafson, David E. Long, Phoebe E. Wilkins, Virginia Gillespie.

The University of Illinois made generous arrangements for the use of their IBM equipment, under the supervision of J. Richard Hackman. Gerald R. Oncken, a graduate student at the University of Illinois, provided much valuable assistance in preparing the data for analysis and in computer programming.

August 1966 W.S.D.

Contents

I. Introduction.. 1
  A. History of the Problem................................ 1
    1. Attrition... 1
    2. Studies of Attrition from Colleges.................. 2
    3. New Factors and Unresolved Issues................... 4

  B. The Tri-College Study................................. 5
    1. Characteristics of the Three Colleges............... 5
    2. Rationale of the Study.............................. 7

II. Method: Collection and Treatment of the Data........... 9
  A. Definition of Withdrawal Categories................... 9

  B. Student Populations................................... 9

  C. Student Withdrawal and Persisters..................... 10
    1. Limitations of Time................................. 10

  D. Sources of Data....................................... 10
    1. Pre-College Data.................................... 10
    2. Early College Instruments........................... 10
      a. Biographical Data Sheet........................... 10
      b. OAIS.. 12
    3. College Records..................................... 12
    4. Questionnaire to Parents of Freshmen................ 12
    5. Exit Interview Blank................................ 13
    6. Post-Withdrawal Records............................. 13
      a. Sources of Post-Withdrawal Data................... 15

III. Results of the Study.................................. 18
  A. Reaction to the Attrition Experience.................. 18
    1. Descriptive... 18
      a. Questionnaires from Students and Parents.......... 18
      b. Report of Selected Data........................... 21
        (1) The Open-Ended Question........................ 21
        (2) Interviews..................................... 22
    2. Comparative... 23
      a. Comparison of Transfers and Others on "Reasons". 23
      b. Time of Year of Withdrawal........................ 26
      c. Class Standing At Time of Withdrawal.............. 33

  B. Differences Among Categories of Students.............. 40
    1. Mean Differences among Four Categories of Students on Pre-College Data, Early College Instruments and the Questionnaire to Freshman Parents.............. 40
    2. Discriminant Analyses: Predicting Student Status... 60
      a. Discriminant Functions............................ 62
      b. Differentiation of the Four Student Categories.. 63
      c. Classification Attempt: The Attrition Prone..... 67
      d. Summary... 69

IV. Special Studies.. 70
    A. College and University Environment Scales............ 70

    B. Disciplinary Dismissals.............................. 71

V. Discussion... 74

VI. Conclusions... 78

VII. Summary.. 81

VIII. Appendix.. 85
    A. The Open-Ended Question.............................. 85

    B. Home Interviews...................................... 93

    C. Tables A, B, C, D, E, F, G........................... 98 ff

IX. References.. 115

X. Exhibits.......................................following 115

Index of Tables and Exhibits

Page

Table 1 Student Populations.................................. 9

Table 2 Student Withdrawals and Persisters................... 11

Table 3 Sources of Post-Withdrawal Information: Students and Parents 1963-64...................... 16

Table 4 Sources of Post-Withdrawal Information: Students and Parents 1964-65...................... 17

Table 5 Differences Among Three Types of Withdrawals on 25 Common "Reasons for Withdrawal".............. 25

Table 6 Relation between Time of Year of Withdrawal and Student Reaction to Withdrawal: Males, Voluntary Withdrawals..................... 27

Table 7 Relation Between Time of Year of Withdrawal and Student Reaction to Withdrawal: Females, Voluntary Withdrawals................... 29

Table 8 Relation Between Time of Year of Withdrawal and Parental Reaction to Withdrawal: Males, Voluntary Withdrawals..................... 31

Table 9 Relation Between Time of Year of Withdrawal and Parental Reaction to Withdrawal: Females, Voluntary Withdrawals................... 32

Table 10 Relation Between Class Standing at Time of Withdrawal and Student Reaction to Withdrawal: Males, Voluntary Withdrawals..................... 34

Table 11 Relation Between Class Standing at Time of Withdrawal and Student Reaction to Withdrawal: Females, Voluntary Withdrawals................... 36

Table 12 Relation Between Class Standing at Time of Withdrawal and Parent Reaction to Withdrawal: Males, Voluntary Withdrawals..................... 38

Table 13 Relation Between Class Standing at Time of Withdrawal and Parent Reaction to Withdrawal: Females, Voluntary Withdrawals................... 39

Table 14 Comparison of OAIS Scores, College Board Scores, and H.S.Rank of Persisters & Three Categories of Drops: Males.. 41

Page

Table 15 Comparison of OAIS Scores, College Board Scores & High School Rank of Persisters and Three Categories of Drops: Females.. 42

Table 16 Comparison of Scores on Items from the Biographical Data Sheet for Persisters and Three Categories of Drops: Males.. 43

Table 17 Comparison of Scores on Items from the Biographical Data Sheet for Persisters and Three Categories of Drops: Females.. 46

Table 18 Relation Between Declared Major of Freshmen and Persistence.................................... 49

Table 19 Comparison of Scores on Items from the Parents' Questionnaire for Persisters and Three Categories of Drops: Males.. 51

Table 20 Comparison of Scores on Items from the Parents' Questionnaire for Persisters and Three Categories of Drops: Females.. 54

Table 21 Persistence of Students from Cooperating and Non-Cooperating Homes........................... 58

Table 22 Multiple Discriminant Analysis of Selected Variables for the Four Student "Categories" 64

Table 23 Vector Rank Orders.................................... 65

Figure 1 Group Centroids in the Two-Dimensional Discriminate Space................................. 66

Table 24 CUES... 70

Appendix: Tables and Exhibits

Page

Table A Reasons for Withdrawal.............................. 98

Table B Reactions to Withdrawal:
All Voluntary Withdrawals and Transfers............. 100

Table C Reactions to Withdrawal:
All Parents of Voluntary Withdrawals and Transfers.. 104

Table D Reactions to Withdrawal:
All Academic Dismissals............................. 106

Table E Reactions to Withdrawal:
All Parents of Academic Dismissals.................. 109

Table F Topical Outline: Open-Ended Question................. 112

Table G Attitude Ratings: Interviews........................ 114

Exhibit 1 Biographical Data Sheet

Exhibit 2 Freshman - Parent Questionnaire

Exhibit 3 Questionnaire A (Student: Voluntary Withdrawal)

Exhibit 4 Questionnaire B (Student: Academic Dismissal)

Exhibit 5 Questionnaire C (Student: Disciplinary Dismissal)

Exhibit 6 Questionnaire D (Parent: Voluntary Withdrawal)

Exhibit 7 Questionnaire E (Parent: Academic Dismissal)

Exhibit 8 Questionnaire F (Parent: Disciplinary Dismissal)

Introduction

History of the Problem

Attrition. The number of students who withdraw from the colleges of the nation without graduation has become an issue of wide-spread concern. Discussions of the problem tend to emphasize the implications for society, for the student, or for institutions of higher education. Society needs citizens prepared to consider the complex issues of modern life, and professional and technical personnel able to contribute to a scientific age. The student with potential must have this educational background for his future achievement. Further, the colleges lose much of their effectiveness when attrition forces over-attention to admissions and to orientation of beginning students. The implications of attrition from colleges involve issues of major significance in all of these areas.

The concern about withdrawal from college is a part of the broader problem of "dropout" from schools at all levels, from the elementary school to the graduate or professional school. The causes of withdrawal at all levels and the effects for the individual and for society are related, but the differences between drop from elementary or secondary school in contrast with withdrawal from colleges are substantial.

One of the striking differences between drop at lower and at higher levels is in the decision itself. School attendance at lower levels is assumed in the nation. It is an integral part of community life which has been written into the law. Public taxation supports the school system, and the home is involved only in minor additional expense. Even more significant in reference to college attrition is the fact that most students attend school through legal age without involving him or his home in any real decision. This may continue through junior college in some areas.

The college student who attends institutions like those cooperating in the Tri-College Study is in school as a result of significant individual and home decisions. He must plan, often long in advance of his attendance, with transcripts, application blanks, and recommendations. He frequently leaves the home community and rejects opportunity for immediate employment. He involves himself and his family in heavy expense, both in cash outlay and in the forfeiture of current income. Social pressures may strongly encourage college attendance by youth of some socio-economic groups, but the expectation has no legal base or any assumption of universality. The minimum level of commitment required for attendance at college is far above the level typically required in American society for attendance at elementary or secondary school.

The student who withdraws from the liberal arts college renounces a decision which had required careful consideration and substantial levels of personal and economic commitment. The student, approaching maturity, engaged himself in an enterprise that promised enough significance to justify major involvement of time and money. Withdrawal from college represents the basic review or the renunciation of a decision of moment.

The rate of attrition is, nevertheless, high. One-fourth of the beginning students withdraw within a year, and fewer than half graduate within the period of four years. An extensive literature deals with this problem.

Studies of Attrition from Colleges. The general topic of attrition from colleges involves so many facets that much of the literature of education has relevance to the problem directly or indirectly. Many studies, for example, have focused on the selection of applicants for admission to college, and these studies have obvious relationship to the question of withdrawals. All of the studies of the academic success or failure of young people in college are dealing with areas closely allied to the question of attrition. Discussion of effective teaching, of peer group influences, of emotional and social problems of adolescents, of the undergraduate curriculum, of college climate, offer to make contributions to the understanding of the withdrawal of students from college. Other studies deal directly with attrition--the extent of the problem, explanations, and proposed solutions.

Some studies have included the calculation of the rate of attrition. While exact figures are not easy to gather, Summerskill (12) has reviewed some 35 studies which reported these facts from hundreds of institutions over a period of 40 years. He reports from this work that the attrition rate has been quite constant for 40 years, that only 40 per cent of entering students graduate within the normal four-year term, that some 20 per cent complete their studies later, sometimes much later. The figure of 60 per cent of entering students who ultimately graduate may be accepted as the best estimate available today.

Iffert (4) gives a similar figure and adds a breakdown by college year. By the close of the first registration period, more than ten per cent of entering students have withdrawn, and, by the close of the first year, more than 27 per cent have withdrawn. By the close of the second year, an additional 15 per cent have withdrawn. Others withdrew during the third and fourth year without graduation. Withdrawal began promptly in the first year and continued almost to the point of graduation. Approximately half of those who did withdraw did so by the end of the first year of college work.

Some reports would raise the figure of ultimate graduation. Jex and Merrill (5) concluded that 60 per cent of the dropouts will ultimately graduate, and Ford and Urban (2) propose that a more adequate figure is 75 per cent. This proposed amendment emphasizes the elusive transfers, evening school and summer school students, part-time students, combination courses, and mature graduates. It is difficult to trace such students over the years, and some may be lost to any follow-up.

Many studies list the stated reasons for the withdrawal of students. A typical list includes the following: financial problems, academic difficulties, dissatisfaction with the curriculum, dissatisfaction with the instructors or with administrative policies, personal adjustment difficulty, personal or family problems, illness, marriage, an uncongenial college climate.

The relation between levels of academic aptitude or inadequate skills of study and attrition have been explored. Low levels of ability or inefficient methods of reading and study have clearly contributed to the rate of withdrawal. Other studies show a significant number of able students among the drops.

A number of less obvious observations have been made. One study reports that those who change majors more frequently tend to persist. Studies of interviews on campus with those considering withdrawal have been reported a number of times, with the finding that a series of interviews on campus can reduce the number who withdraw. Students who receive grades below their level of expectation tend to withdraw. The college calendar, semester or quarter system, may be a factor in rate of withdrawal. Many similar facets of this question are reported in the literature.

A number of studies approach the problem from the point of view of personality, of emotion, and of social adjustment. The Minnesota Multiphasic Personality Inventory and the Minnesota Counseling Inventory are examples of instruments used in this area. An interesting finding has been made that men who withdraw are more irresponsible and non-conforming while women are more withdrawn and depressed. One student of the field finds reason to assign emotional conflict as the cause of the withdrawal of more than half of the students. Clinical studies in depth, guided by personality theories, have been undertaken as an approach to the problem.

An early study by McNeeley (18) reviewed the dropouts of some 25 universities in 1931 and 1932. He related the topics of dropout and transfer and gave valuable information about the rate of dropout during this period.

Iffert's study for the United States Department of Health, Education and Welfare, Retention and Withdrawal of College Students, (4) is one of the most important contributions. This was a questionnaire study of students who entered colleges and universities of various types in the fall of 1950. Data from 149 institutions over the country were gathered, and these institutions were representative in geographical region, type and size of institution, and type of student. Records were gathered several years after entrance concerning the rate of withdrawal and of graduation. The study sample included more than 13,000 students and more than 8,000 of these responded.

An excellent survey of this total field is given by Summerskill in the volume The American College (12). He reviews the evidence on the rate of attrition, offers an analysis of the factors associated with dropout, makes suggestions for future research, and gives a selected bibliography of almost 200 items.

A recent article by Marsh (6) reviews the studies of the past 10 years concerning dropout. A bibliography of more than 50 items, chiefly from this period, is presented.

New Factors and Unresolved Issues. The study of attrition faces the dilemma of time. Data usually are gathered for an experimental group at the time of admission to the college. The high school record and the freshman orientation program give information for such a study. Instruments particularly designed for the understanding of withdrawal may well be added for such a project. At least four years, however, are needed to identify those students who will drop before the completion of the normal college term. A few more years are needed to identify the temporary withdrawal. Those destined to graduate later in life add special complications: first, they cannot be identified for a number of years; second, they live much of their lives without the advantages which graduation at a younger age might have brought. The contribution to society may be correspondingly limited. Many of these graduates may resemble the dropouts more closely than they do the normal-age graduates. Nevertheless, account must be taken of them in the study of attrition.

Follow-up information must be obtained from the student who has withdrawn. The mailing address and student response are difficulties after a few years. Further, the percentage of returns on questionnaires or communications always leaves the question of the representativeness of the actual returns. Are there special factors which influence some not to cooperate?

A study by Iffert (4) dealt with phases of this problem. His student sample was drawn from first time enrollments of 1950. They rated in 1953 or later their reasons for going to college in 1950. There are problems in asking the student at the time he enters college what his reasons may be. When the complication of time is added, asking one to report several years later the reasons he went to college, the difficulties multiply. Yet, Iffert's technique is essential to the study of long-time results unless the research continues over a number of years.

Additional difficulties appear in the area of definition. The categories of withdrawal are not rigid. One student in academic difficulty fears he may be dropped, or he may be advised to withdraw. Under these pressures, the student withdraws and may be classified as a voluntary withdrawal. A number of students who classify as voluntary drops probably "beat the gun" either in the academic or the disciplinary category. Yet such a student is often classified with the voluntary transfer whose achievements are significant. A similar ambiguity may reside in some disciplinary-academic dismissals.

Temporary withdrawal involves complexities. It may represent immediate need for income for future education, or the recognition by a student of the futility of education at superficial level and the postponement of study to a time of more maturity. Military service may call some students, and many of these will return after their term of duty.

The definition of higher education involves some complication. A student may transfer to a type of training which is useful for him, outside the recognized field of the degree-granting institution. He counts as a withdrawal from college, although he continues training in line with his goals. His program and prospects may vary significantly from more casual drops.

Research in this field must come to terms with these unresolved issues--the question of time, the specification of categories, the sequence of years, the definition of educational persistence.

The Tri-College Study

Characteristics of the Three Colleges. Colleges of the Tri-College Study are representative institutions of the Middle West: Hanover College of Hanover, Indiana; MacMurray College of Jacksonville, Illinois; and Wittenberg University of Springfield, Ohio. These colleges have joined in a study of attrition.

The institutions are liberal arts, church-related colleges. The students are, in large proportion, living in a residential college away from home. The cost of attending these institutions is within a fairly narrow range. The student bodies, as judged by various measures of the Tri-College Study, are similar in levels of ability and in attitudes toward their respective institutions. Two of the institutions have approximately 1,000 students in attendance, while the third has approximately double that number. A description of each institution follows.

Hanover College is a coeducational liberal arts college located in Hanover, Indiana. Founded in 1827 as a church-related institution, it is governed by an independent board affiliated with and receiving support from the United Presbyterian Church, U.S.A. It is accredited by the North Central Association of Colleges and Secondary Schools.

The enrollment is presently 1035 students, 544 men and 491 women. Students attending Hanover come from 33 states and four foreign countries. Eighty-two per cent of the students come from the contiguous states of Indiana, Kentucky and Ohio; approximately 10 per cent have their homes in the eastern and New England states.

The religious affiliation and background of the students who attend Hanover College is predominantly Protestant. Approximately 40 per cent come from Presbyterian homes, a figure which has been constant for many years. Between five and 10 per cent of the students identify themselves as Catholic or Jewish. Twenty-three different denominations or faiths are represented.

Ninety-five per cent of the students live in college housing; the remaining five per cent are married or commuting students. Hanover College has five fraternities and four sororities, all with national affiliation. In 1965-1966, 69 per cent of the men and 64 per cent of the women belonged to these organizations.

In academic potential the students attending Hanover College are somewhat above the national average. A majority graduate in the top 20 per cent of their secondary school classes, and the average score on the CEEB Scholastic Aptitude Test has been in the 550-600 range, increasing with each new incoming class.

In 1962, Hanover College adopted a new curriculum and calendar, the "Hanover Plan." The curriculum emphasizes acquaintance with non-western cultures and student responsibility for his own learning. A terminal five-week term in which student pursues one course encourages professors to take classes off-campus for enrichment of the learning experience.

MacMurray College is a liberal arts college with an enrollment of more than 1,000 students. It became the Midwest's first coordinate institution in 1955 with the establishment of the College for men, built alongside the College for women, founded in 1846.

The College is located in Jacksonville, Illinois, a recognized educational center in the Middle West. MacMurray is affiliated with the Methodist Church and has been accredited by the North Central Association of Colleges and Secondary Schools since the first list was published in 1913.

Some 30 religious denominations are generally represented on the campus with 30 per cent of the students being Methodists. Approximately 50 per cent of the students are from the Midwest, and nearly 25 per cent are from states along the eastern seaboard.

Academically, MacMurray's student body is strong. Over half the students rank in the top fifth of their high school graduating class. The College Board medians for the entering freshman class in September, 1965, were V 555; M 562. MacMurray students live on a 60-acre campus where over 98 per cent of the students are housed in residence halls.

The educational aims of MacMurray are chartered in the MacMurray Plan, an academic structure which provides a core curriculum with special emphasis on the humanities. The curriculum is organized on the "four-four" plan to educate in depth as well as in breadth. The normal course load is four four-hour courses each semester. The College operates on a two-semester system, leaving summers free for work, study, or travel.

Wittenberg University is located in Springfield, Ohio, on a rolling campus of 55 acres. Wittenberg College, the undergraduate division with which this study is concerned, had an enrollment of 2,187 students for the first semester of 1965-1966. This enrollment consisted of 1,076 men and 1,111 women.

The University is a private, liberal arts institution, affiliated with the Lutheran Church in America. Wittenberg is accredited by the major state, regional, and national accrediting organizations.

Thirty-six states and 18 countries are represented in the Wittenberg student body. Geographically, 70 per cent of the undergraduates are from midwestern states (approximately 50 per cent from Ohio), 26 per cent from northeastern states, 2 per cent from southern states, and 1.2 per cent from foreign countries.

Approximately 48 per cent of the undergraduate population is affiliated with various Lutheran churches. About four per cent list non-Christian or no church affiliation. The remaining 48 per cent list affiliation with other Christian denominations.

Primarily a residential campus, most students are housed in university residence halls or in fraternity or sorority houses. Approximately 60 per cent of both men and women are affiliated with social fraternities and sororities, a figure which has remained constant over many years.

The student body of Wittenberg is very capable. Selected from the upper 20 per cent of their high school graduating class, the freshman class entering in September, 1966, scored between 500 and 600 on the College Board SAT Verbal and Mathematics tests.

As an experimental institution, Wittenberg University will initiate a revised liberal arts curriculum and calendar in September, 1966. All courses will be conducted on a term basis, whereby a student will take three courses in each of three terms during an academic year. Thirty-five courses will be required for a degree under this 3-3 Plan. The undergraduate college will offer only the Bachelor of Arts and the Bachelor of Fine Arts degrees.

The three colleges have also been described by the results of the administration of the College and University Environment Scales, developed by C. Robert Pace (10). Students tend to describe each of the colleges in similar terms. Reference to the percentile norms of this instrument places these colleges high in Community, rather high in Practicality, Propriety, and Scholarship, and fairly high in Awareness. Table 24 reports these results in terms of percentiles.

Other data show that these institutions have much in common, the Scholastic Aptitude Test scores, returns from the Biographical Data Sheet, and the Opinion, Attitude and Interest Survey. These facts have permitted, at appropriate points in the Tri-College Study, the consolidation of scores from the three institutions in some of the tabulations.

Rationale of the Study. The theory of the Tri-College Study begins with skepticism concerning the final instructiveness of the lists of "reasons for withdrawal." Many studies, including this one, have gathered such lists of reasons either at the time of withdrawal or later. The results are reasonably consistent from one study to another. One may doubt the competence or willingness of some students to give a final explanation, but he cannot ignore what they report. This is doubtless one of the steps in an attempt to understand attrition.

The skepticism is based upon a significant observation: almost all of the problems reported as reasons for withdrawal are shared by large numbers of students who persist. The financial problem which is given as the reason for withdrawal is endured by many students who persist in the traditional condition of student poverty. Academic difficulties which lead some to drop out prompt persisters to new effort. Perhaps such lists should be titled "Typical Problems of College Students."

Nor is it clear that these problems come to the dropout in more desperate degree. Serious illness or critical financial problems bring withdrawal to some, and there is no reason to seek further for explanation in these cases. But explanation in most cases does not seem to reside in differences in the severity of the problem.

The central question concerns the circumstances under which these stated reasons seem to influence some students to withdraw, while others who share the reasons persist without serious thought of withdrawal.

The hypothesis of the study proposes that one of the chief differences is in the commitment of the student to higher education as the major opportunity of post-high-school years. Students with high levels of commitment may deal with many problems as they persist in their education, while those with low levels of commitment tend to find these problems adequate reasons for withdrawal. Efforts were made to identify levels of commitment.

The theory further proposes that these levels of commitment of the student are related to the commitment of the home to higher education. While home commitment does not always bring student commitment, these home attitudes, in relation to student persistence or withdrawal seemed to merit investigation.

As employed in this investigation, commitment is a concept defined by the responses made by students and parents to certain questions submitted to them.

Student records offer important data. The high school rank, the tests of academic aptitude, the student age, the socio-economic background are examples of significant items on the student record which correlate with various phases of college achievement. These records may be instructive about attrition, especially when multiple causation and the cumulative effects of various factors are recognized. Such data were gathered as an important approach to the theory of the Tri-College Study.

Post-withdrawal data promised to be informative. The statements of students and parents and information about the activities of the students after withdrawal were gathered to clarify some of the issues.

These approaches were designed to investigate the problem of attrition, to test the hypothesis of commitment, and to contribute to the identification of the attrition-prone student.

Method: Collection and Treatment of the Data

Definition of Withdrawal Categories

Each withdrawing student was considered a voluntary withdrawal, a disciplinary dismissal, or an academic dismissal when, through the normal procedures of his college, he was so classified on the record.

These are discrete categories on the record, but the sample of voluntary withdrawals is not pure. Some students withdraw voluntarily when their status becomes doubtful or when action by the college is threatened. This blurs the category, voluntary withdrawal. Academic and disciplinary dismissals may also be confused at times, where both problems may have been involved. However, the study classified the student according to the college reports.

In the statistical procedures, four classifications were used: persisters, transfers and returnees, "real" voluntary drops, and academic drops. Transfers and returnees have withdrawn but within the period of the study have continued college work. The "real" voluntary drops have not continued their education. Academic drops are placed in a separate category in contrast with the voluntary drops. Disciplinary drops were studied but were not included in the statistical analyses, since the number was small.

Student Populations

The student populations of the three colleges are reported in Table 1. This table covers the two year period of the study, 1963-64 and 1964-65.

TABLE 1
Student Populations

		1963-64	1964-65
College A	Freshmen	302	380
	Sophomores	235	266
	Juniors	172	177
	Seniors	182	167
		891	990
College B	Freshmen	369	398
	Sophomores	260	283
	Juniors	137	168
	Seniors	168	128
		934	977
College C	Freshmen	596	723
	Sophomores	539	504
	Juniors	417	434
	Seniors	381	378
		1933	2039

Student Withdrawals and Persisters

The number of drops and persisters for 1963-64 and 1964-65 are reported in Table 2. This is the experimental group of the study.

The figures report the student population of the three colleges (Table 1). The experimental sample is slightly smaller. A few did not complete some of the instruments; overseas students were not included because of the differences in background, language difficulties in the home, and the problems of communication; transfer-in students were not included since classifications were ambiguous and some data were not available. The elimination of these cases does not affect the representativeness of the sample which constituted the experimental group.

Limitations of Time. The study has been limited in time. Some students were followed for two years, from September 1963 until October 1965, others from September 1964 to October 1965. Some students counted as persisters will doubtless withdraw after the final date for the inclusion of data in the study. However, the critical period for dropout is the first college year, and all students were followed beyond the date of the beginning of the sophomore year. Those who began their work in the fall of 1963 were followed beyond the date of the beginning of the junior year. The crucial aspects of withdrawal from college seem to be reasonably represented in data covering these periods.

Sources of Data

Pre-College Data. Data from the College Entrance Examination Board scores and high school rank were available from the pre-college period.

Early College Instruments. In connection with the freshmen orientation testing program, certain instruments were administered as a part of the study.

Biographical Data Sheet. The first of these instruments was the Biographical Data Sheet, developed for the study (Appendix: Exhibit 1). On the answer sheet the student reported his name, home address, occupation of father and mother (if living). Plans for major work and for career were reported.

The first section of this instrument is biographical, including questions on age, size of home community, questions about the high school and participation in activities, the father's and the mother's education, the student's relationship with them, religious preferences, distance of the college from home, work for pay during the academic year.

In the second part of this instrument, direct questions concerning commitment are asked. These concern college intentions, including the length of the proposed period of study, plans for transfer, the time when the decision to go to college became clear. Adaptations of Iffert's "Reasons for Going to College" constitute the third part. These statements concern academic, occupational, personal, social, and traditional

TABLE 2
STUDENT WITHDRAWALS AND PERSISTERS

1963-4 Sample: 2-year period

	1963-64 Freshmen				1963-64 Upperclassmen			
	Voluntary Drop	Academic Drop	Persisters	Totals	Voluntary Drop	Academic Drop	Persisters	Totals
College A	75	36	*	111	50	19	*	69
College B	114	46	146	306	104	30	*	134
College C	135	42	401	578	82	46	*	128
Totals	324	124	547	995	236	95		331

1964-5 Sample: 1-year period

	1964-5 Freshmen				1964-5 Upperclassmen			
	Voluntary Drop	Academic Drop	Persisters	Totals	Voluntary Drop	Academic Drop	Persisters	Totals
College A	44	11	295	350	26	9	*	35
College B	72	25	244	341	34	30	*	64
College C	80	30	606	716	43	9	*	52
Totals	196	66	1145	1407	103	48		151

* Data in this category not involved in the study

reasons for college attendance. This information is available for the experimental group of 1964-65.

Opinion, Attitude, and Interest Survey. The OAIS by Benno G. Fricke (3) was used to measure characteristics not included in tests of academic aptitude. This instrument contains 396 statements to which the students respond True or False. Scores are obtained for 14 scales. Three of them are "response bias scales"; three are "academic scales"; three are "psychological adjustment scales"; five are "educational-vocational interest scales."

The response bias scales include the following: the "Set for True scale" which measures a tendency to acquiesce to statements; the "Infrequent Response scale" which measures the tendency to give atypical responses; the "Social Undesirability scale" reflects answers which are frank and even self-deprecatory.

The three academic promise scales include: the "Achiever Personality scale" which measures personality attributes associated with academic success; the "Intellectual Quality scale" which measures attributes associated with an intellectual orientation; the "Creative Personality scale" which measures attributes associated with creative behavior.

Three psychological adjustment scales include the following: the "Social Adjustment scale" measuring attributes associated with good interpersonal relationships; the "Emotional Adjustment scale" measuring attributes associated with feelings of security; the "Masculine Orientation scale" measuring attributes associated with psychological sex.

There are five educational-vocational interest scales: the "Business Interest scale," the "Humanities Interest scale," the "Social Science Interest scale," the "Physical Science Interest scale," and the "Biological Science Interest scale."

College Records. Data were accumulated from the early college records of students. The grades were gathered in terms of grade point average. The majors chosen by students as they entered college were listed when they had made a choice. The time of dropout was noted. This record was processed in terms of four units: drops during the first semester, drops at the close of the first semester, drops during the second semester, and drops at the close of the second semester.

Questionnaire to Parents of Freshman. A questionnaire was sent to the parents of all freshmen of the fall of 1964, approximately one week after the beginning of school. (Appendix: Exhibit 2). The questions were designed to explore parental attitudes toward higher education, and to compare the responses of parents with the responses of students to similar questions. The instruments were mailed before the specific issues of college life, academic or social, had had much time to develop.

The first section of six questions asked, directly and indirectly, concerning the commitment of the home to the opportunity of the son or daughter for college work. In the first five questions, the parents were asked both about their own attitudes and about their understanding of the attitudes of the student from their home.

The final question in this section was three-fold: the first asked concerning the plans in terms of the level of education which the parents expected the student to achieve; the second concerned plans to continue in the college or to transfer to another institution; and the third asked about the time at which the plan to attend college became clear.

These questions were designed to approach the general issue of commitment from different directions. The inquiry about the time to be given to higher education asks directly about commitment in terms of the accepted period of study. The plan for transfer asks not only about commitment to the present institution but raises the issue of the stability of the decision. The question concerning the age at which the decision to attend college was made was introduced on the assumption that the earlier decisions are likely to be more stable. The same questions had been submitted to students, permitting comparisons of responses.

The second section submitted to parents a list of "Reasons for Going to College," adapted from Iffert (4). The parents were informed that the same list had been submitted to the students. The statements were rated on a four-point scale from "no importance" to the "highest level of importance." The responses to this final section of the parents' questionnaire can be compared with the returns from the students' instrument, the Biographical Data Sheet.

Exit Interview Blank. An Exit Interview Blank was filled out by an interviewer on each campus at the time of the student's withdrawal. Some students who withdrew at the end of a semester, and those who withdrew without any consultation had no exit interview. The Exit Interview Blank was then filled out by an administrative officer from available records.

The Exit Interview Blank asked for a check of the stated reasons for withdrawal together with the interviewer's comments. Information was added by the interviewer about the major field, grade point average, and campus residence. Many students who left at the end of a semester gave no opportunity for interview. Hence, these blanks were not as useful as had been hoped.

Post-Withdrawal Records. Questionnaires with covering letters were sent to students who had withdrawn. Separate questionnaires were prepared for the voluntary withdrawal, for the academic dismissal, and for the disciplinary dismissal. (Appendix: Exhibits 3, 4, and 5). The questionnaire for the voluntary drop submitted a list of 31 reasons for withdrawal with a rating, "most significant," "less significant," or "no significance." In the second section the questionnaire asked concerning the planning of the withdrawal and the attitude of friends at home and of parents toward the withdrawal. A question was asked about plans for later college or non-college work, if any, and a checklist was given concerning post-withdrawal activities. An open-ended question was added inviting a comment on any subject connected with the withdrawal.

A second questionnaire was prepared for those who were dropped for academic reasons. The list of "reasons for withdrawal" was also included in this questionnaire, and was essentially the same list which was used for the voluntary withdrawals, with a different introduction. Questions were asked concerning the academic status before withdrawal, the level of work done by friends, the relationship of violations of social rules to academic work, and the experience with college, home, and community in connection with this experience. A question was added concerning activities in the present and the near future. An open-ended question was the final item on the questionnaire.

The questionnaires to disciplinary dismissals asked first about the disciplinary incident, the procedures and evidence used in connection with the discipline, and the counseling service offered. These former students were asked about the effects of this action at home, in the community, in further education, and they were asked concerning activities of the present and the near future. The list of reasons was presented which was used with other drops, with a different introduction. An open-ended question followed, with some suggestion that disciplinary actions may have constructive value for the individual.

When questionnaires were not returned, two follow-up letters were sent with other copies of the questionnaire. These mailings were planned at intervals of three weeks.

Questionnaires were also sent to parents of students who had withdrawn. (Appendix: Exhibits 6, 7 and 8). An interval of two or three weeks after the receipt of the student questionnaire was allowed. When the student questionnaire was not returned, the parent questionnaire was mailed two or three weeks after the second follow-up to the student. The parents of voluntary withdrawals were asked about their part in the decision to withdraw and about the assistance of college representatives. They were asked about the original plans at the time of enrollment and about attitudes toward the limited college experience. Questions concerning possible later education of the student were asked, and an open-ended question was submitted for a comment about any phase of the experience.

A questionnaire was prepared for the parents of academic dismissals. This questionnaire included questions about their knowledge of the academic difficulties of the student, the effect of the action in the home and the community, as well as in the opportunity for further education. A direct question asked about their judgments concerning the former student's commitment to higher education. An open-ended question was added giving these parents opportunity to comment on any phase of the experience.

A third questionnaire was sent to parents of those dropped for disciplinary reasons. They were asked to review their understanding of the disciplinary situation and procedures, the effects of the action upon relationships in the home and the community, and upon the opportunities for further education. An open-ended question was added, inviting the parents to make comments on any phase of the experience.

Telephone interviews were designed to check transfer. Many questionnaire returns reported future plans for college. At appropriate times, the question was investigated by phone call. Effort was made to contact the student or the home after the usual registration periods in colleges. The tables of sources of post-withdrawal information show that the phone call was the source of such information in 143 cases (Tables 3 and 4). These phone calls normally reached a parent who frequently provided additional information.

Interviews were held with a number of parents and with some students. The total number of interviews was 32. Most were held in the home, but some were with students on a campus after return or transfer. These were designed as semi-structured interviews, but the guide outline was not followed closely when the discussions seemed to cover the significant points.

The purpose of these interviews was to develop the background of the withdrawal and to make vivid phases of the total experience which might escape the other methods.

Sources of Post-withdrawal Data. The sources of post-withdrawal data concerning students from the three institutions are reported in Tables 3 and 4. The number of returns of questionnaires by students is reported together with all supplementary sources of information. When a phone call to a student is the only source of information, it is listed as "Student Telephone Only." When a telephone call supplemented information obtained from other sources. it is listed as "Student Telephone Duplicate," and the same principle applied in the "Interview Duplicate" column.

When the only source of information is in the parent return of a questionnaire, it is listed in the "Parent Return Q Only" column. When the parent return of the questionnaire duplicated the student return, it is reported as "Parent Return Q Duplicate." When the only source of information is by telephone call or by interview, this is reported in the corresponding columns. Most telephone calls were duplicates, answered by parents and these are listed as "Parent Telephone Duplicate."

Some type of return concerning students who withdrew from the three institutions was obtained in 93 per cent of the cases. This percentage was 95 per cent for 1963-64 and 91 per cent for 1964-65.

The cooperation of the students and homes was most generous. The response to telephone conversations and interviews was highly satisfactory. In only a case or two was there any reluctance to respond.

TABLE 3

Sources of Post-Withdrawal Information
Students and Parents
(1963-1964)

	Student Quest. Returns	Student Tele. Only	Student Interv. Only	Student Tele. Dupl.	Student Interv. Dupl.	Parent Return Q Only	Parent Return Q Dupl.	Parent Tele. Only	Parent Interv. Only	Parent Tele. Dupl.	Parent Interv. Dupl.	Number of Cases
College A												
WD	57	0	0	0	2	19	15	11	1	28	5	88
AD	13	2	0	0	1	10	6	5	0	15	3	30
DD	2	0	0	0	0	1	1	2	0	1	0	5
College B												
WD	125	2	0	1	3	25	56	10	1	56	2	163
AD	29	0	0	2	1	14	19	4	2	23	2	49
DD	3	0	0	0	0	2	2	3	0	3	0	8
College C												
WD	100	0	0	3	0	20	33	19	1	38	2	140
AD	36	0	0	0	0	16	20	8	0	22	1	60
DD	3	0	0	0	0	0	1	0	1	0	0	4

WD=Voluntary Withdrawal, AD=Academic Dismissal, DD=Disciplinary Dismissal

TABLE 4

Sources of Post-Withdrawal Information
Students and Parents
(1964-1965)

	Student Quest. Returns	Student Tele. Only	Student Interv. Only	Student Tele. Dupl.	Student Interv. Dupl.	Parent Return Q Only	Parent Return Q Dupl.	Parent Tele. Only	Parent .Interv. Only	Parent Tele. Dupl.	Parent Interv. Dupl.	Number of Cases
College A												
WD	87	0	0	0	0	12	71	5	1	9	0	105
AD	30	0	0	0	0	1	20	9	0	2	0	40
DD	3	1	0	1	0	3	0	5	0	2	0	12
College B												
WD	123	0	0	0	0	17	94	12	0	15	0	152
AD	42	0	0	0	0	13	20	13	0	5	0	68
DD	2	0	0	2	1	0	1	2	0	1	0	4
College C												
WD	154	2	0	2	0	17	128	13	0	7	0	186
AD	30	2	0	0	0	11	20	11	0	0	0	54
DD	0	0	0	0	0	1	0	2	0	0	0	2

WD=Voluntary Withdrawal, AD=Academic Dismissal, DD=Disciplinary Dismissal

Results of the Study

Reaction to the Attrition Experience

Descriptive. Tables included in the appendix present statistical summaries of data from post-withdrawal questionnaires given to students who withdrew during or at the end of the 1963-64 and 1964-65 academic years. (Appendix: Tables A, B, C, D, E, F). Upperclass students as well as freshmen are included, and data are combined for the two years.

Questionnaires from Students and Parents. Reasons for Withdrawal. Table A summarizes the responses of students to 31 "Reasons for Withdrawal" included in the questionnaires sent to all students who withdrew or were dismissed from college. The data are presented separately for males and females within these two categories. Each "reason" could be checked as being "most significant" (scored 3), "less significant" (scored 2), or of "no significance" (scored 1). Thus, if all students indicated that a particular reason was of "no significance," it would have an average of 1.0; if all students indicated that it was "most significant," it would average 3.0. Very few items had means above 2.0.

Voluntary Withdrawals: The ten items with the highest means for voluntary withdrawals (males and females combined) were, in descending order:

1. Concern about finances.
2. The school was too small.
3. Not interested in courses.
4. I did not find enough social life.
5. My study habits were poor.
6. Emotional problems.
7. Discouraged by low grades.
8. Unreasonable college rules and regulations.
9. Lack of definite career plans.
10. Advising was inadequate.

The median value of these 10 items was 1.42, or about midway between "no significance" and "less significant."

The ten items with the lowest means, presented in ascending order (lowest first) were:

1. The school was too big.
2. My spouse graduated.
3. Having a baby.
4. Concern about illness or physical disability (family).
5. I found too much social life.
6. I was homesick.
7. Meals were extremely poor.
8. Illness or physical disability (self).
9. Examinations were unreasonable.
10. Secondary school preparation was poor.

The median value of these 10 items was 1.11.

The mean scores of males and females were significantly different on 13 of the 31 items. Males averaged significantly higher on:

1. Concern about finances.
2. Not interested in courses.
3. Lack of definite career plans.
4. Secondary school preparation was poor.
5. Advising was inadequate.
6. I found too much social life.
7. My housing situation caused difficulties.
8. My study habits were poor.

Females were significantly higher on:

1. The school was too small.
2. I was homesick.
3. Married recently or will be married soon.
4. My spouse graduated.

Academic Dismissals: The ten items with the highest means for academic dismissals (males and females combined) were, in descending order:

1. My study habits were poor.
2. Lack of serious effort in academic work.
3. Discouraged by low grades.
4. Not interested in courses.
5. Lack of definite career plans.
6. Advising was inadequate.
7. Lack of definite plans for major.
8. Emotional problems.
9. Irregular class attendance.
10. Secondary school preparation was poor.

Median value for these 10 items was 1.93. The 11 items with the lowest means, presented in ascending order, were:

1. The school was too big.
2. The students were not my type.
3. I was homesick.
4. I gave too much time to team sports.
5. I was lonely.
6. I did not find enough social life.
7. Concern about illness or physical disability (family).
8. The school was too small.
9. I was too active in extra-curricular activities.
10. Illness or physical disability (self).
11. Too many hours given to work for pay.

Median value for these 11 items was 1.22.

The mean scores of males and females were significantly different on only four of the 31 items for academic dismissals. Females were higher on all four significant items:

1. Professors lacked interest in students.
2. Advising was inadequate.
3. Examinations were unreasonable.
4. Emotional problems.

Retrospection on the Withdrawal Experience: Table B presents additional reactions of voluntary withdrawals to the attrition experience; Table C summarizes the reactions of their parents. Tables D and E give analogous information for academic dismissals and their parents.

Voluntary Withdrawals: Students reported, on the whole, that the decision to withdraw was considered at length, and that, when college representatives had the opportunity to do so, they gave ample assistance. Other students, the student's family, and at least one faculty member generally knew of the impending withdrawal before it occurred, but the student's faculty advisor and residence counselor usually did not.

About three-quarters of the parents said they had known for some time that withdrawal was being considered, and half indicated that they had had an active part in the decision to withdraw. Parents agreed with students that college representatives had given them ample assistance when they had had the opportunity. Over 80 per cent of the parents felt that the students had benefited from the college experience.

Most students (62 per cent of males and 74 per cent of females) reported that their parents were satisfied with the withdrawal, and nearly all felt that their parents hoped they would continue their college education. Responses of parents were consistent with this, although indicative of a somewhat lower level of satisfaction than that attributed to them by the students.

Students generally indicated that they had reasonably clear plans for the future, and a very high proportion included more college work in these plans. Twenty per cent indicated that they intended to return to the college from which they had withdrawn. More than half the students reported that their post-withdrawal experiences should be helpful in any further college work.

Academic Dismissals: Most students who were dismissed from college on academic grounds reported that they were on some kind of warning or probation at the time, and about half indicated that they recognized the serious academic situation as early as several months before dismissal. Parents, too, reported that they had been notified of the student's academic difficulty, and about half reported that they had been aware that the situation was serious at least several months before dismissal.

Parents generally were not sure whether the student had or had not made a serious academic effort, or whether the influences and environment of the college encouraged academic work. Most did feel that the student was committed to higher education, and that college work was of major importance for his future.

In contrast to the responses of voluntary withdrawals, nearly half of the academic dismissals and their parents felt that college representatives did not provide ample assistance at the time of withdrawal.

Most students and parents reported that the experience affected home relationships and opportunities for further education at least temporarily, although parents and students generally agreed that community relationships were not significantly affected.

Finally, most students reported that their present activities and plans for the future involved either full time work or further college study.

Report of Selected Data. The Open-ended Question: The last item on the questionnaires to students who had withdrawn and to their parents was an open-ended question. They were asked to comment concerning any judgments which they might have concerning the experience. Almost three-fourths of the students and more than four-fifths of the parents made some comment.

A topical outline was developed, and each comment was classified in terms of these topics (Table F). A committee of six judges chosen from the faculty of one of the cooperating colleges was responsible for these classifications. The measure of agreement was very high, a sample count showing only two per cent disagreement.

A summary-log of replies listed each scored response. This permitted the tabulation of returns by topic. The quotations from the returns are made from the summary-log. (Appendix: Table F).

Among the students, the voluntary withdrawals expressed most frequently a negative attitude toward the academic program and opportunity. Comments in this area emphasized required courses, heavy academic pressure, an unchallenging intellectual atmosphere, curriculum experiments, or a lack of opportunity for work in the major field in the freshman or sophomore year.

Romance and marriage as a reason for withdrawal were discussed frequently. Social life and college climate were next in order with both extremes reported--not enough social life and too much social life. A substantial number reported that they left on account of the expense. Many of them transferred to colleges where expenses were reported as lower.

Students dismissed for academic reasons discussed most frequently the maturing effect of this experience, the difficulty of the academic program, their own lack of educational goals, some personal problems, and the counseling program of the college.

Parents discussed frequently and critically the counseling programs and the supervision of student life. Many parents urged more supervision, especially in the freshman year.

There was criticism of the colleges on the part of parents. Lack of communication from the college was a point emphasized with some feeling, especially from parents of students who were dropped for academic reasons. Many parents protested the assumption that students are mature enough for complete independence. They felt that the home relationships of the student can be educational resources of the college. These resources, they insisted, were readily available to the college and should be used.

There is disagreement between students and parents at this point. Some students complain about the "endless rules" and they do not hesitate to use that devastating term, "old fashioned," about campus expectations. Many parents, on the other hand, regret the permissiveness of the colleges and feel that the use of home influence might avoid serious climax to developing problems.

A more detailed report of these comments from students and parents is offered in the Appendix.

Telephone Interviews: Telephone interviews were held in more than 350 cases. The basic purpose of these interviews was to establish the fact of transfer. Many students in their questionnaire returns announced plans to return to college, but no student was counted as a transfer until he was registered in a college. The difference between the "real" drops and the transfer student is so important that these checks were made by phone. The name of the new institution was requested. In the table of records of sources of information, it is reported that the sole source of information in 143 cases was in the telephone call. In many other cases, information about transfer or present activities was obtained by phone.

While information about transfer was the primary purpose of these calls, many parents, in the telephone conversation, opened other topics. A review of notes from all the telephone conversations showed that some 300 respondents added other information.

Home Interviews: The results from the interviews are difficult to report. Each was unique, and generalizations concerning withdrawals are difficult to formulate. The number of interviews (32) was small. Notes were taken, with permission, in the longer interviews, and a more complete statement was made promptly after the conversations. With but one exception, two individuals conducted the interviews. Both parents were present in somewhat less than half of the cases.

Most of the interviews added information to that obtained by questionnaire or other sources. Emphasis and background circumstances became clear as conversations continued. One student, for example, withdrew from college for financial reason, according to college record and questionnaire return. The interview in the home developed additional information: a divorce and remarriage by the mother, the promise of the father to educate the student, his refusal after a time to continue the financial outlay, the temporary help of the step-father, and the final withdrawal of the student. Withdrawal for financial reasons is only the beginning of this situation. Interviews frequently added information which served to add background and vividness to the record.

The frankness of parents concerning the most difficult situations was surprising. The parents of students who had been involved with the law or in serious social problems did not hesitate to speak with candor. The number was small, but these expressed the hope that their comments could somehow help other parents in similar situations. One couple stated at the beginning of the interview that certain personal matters would be withheld, but after a few minutes they stated that the problems of the student of the home had been increased by their separation which had lasted a couple of years.

Further details about the interviews are reported in the Appendix.

Comparative. Reactions to the attrition experience of several different sub-groups of withdrawals are compared, as classified from the questionnaire responses of the students and of their parents. Three comparisons are reported: (a) type of withdrawal--academic vs. transfer vs. voluntary; (b) time of year of withdrawal--mid-semester vs. end-of-semester; and (c) class standing at the time of withdrawal--freshman vs. sophomore vs. junior.

All comparisons were tested for significance by analysis of variance and the per cent of variance associated with significant relationships was computed.

Comparison of Transfers and Others on "Reasons." Twenty-five "Reasons for Withdrawal" were common to the questionnaires sent to students who withdrew voluntarily and those who were dismissed on academic grounds. This made possible a comparison of the "reasons" reported retrospectively as significant factors in withdrawal by three groups of students: transfers (including students who subsequently re-enrolled in the same institution), voluntary withdrawals (who, at the time of the analyses, had not yet re-enrolled in any college or university), and academic dismissals.

Results are presented separately for males and females in Table 5. Large differences were found among the average scores for the three types of withdrawals on many of the items; these differences were statistically significant for 21 of the 25 items.

Further, the differences follow a particular pattern: for 16 of the 21 significant items, transfers averaged lowest, academic dismissals averaged highest, and voluntary withdrawals fell in between.[1] This ordering of the withdrawal categories was obtained for items with a wide variety of content. Specifically, significant differences consistent with this transfer-voluntary-academic ordering were found for the following items:

---

[1] The differences were significant for only one sex on a few of the items, and on some items slight deviations from this trend were found, but by and large the pattern was strong and consistent.

Academic items

- College courses were not challenging
- Not interested in courses
- Lack of definite plans for major
- Lack of definite career plans
- Lack of ability to do work required
- Secondary school preparation was poor
- Discouraged by low grades
- Advising was inadequate
- Examinations were unreasonable
- My study habits were poor

Personal and social items

- Illness or physical disability (self)
- Concern about illness or physical disability (family)
- Upset by difficulties at home
- Emotional problems
- I found too much social life
- My housing situation caused difficulties

In addition, females (but not males) who had been academically dismissed reported that they felt professors lacked interest in students, and academic dismissals of both sexes (significant only for males) scored lowest of the three groups on the item "concerned about finances."

Finally, transfers were highest on three items reflective of dissatisfaction with the college environment itself:

- The school was too small
- I did not find enough social life
- The students were not my type

This latter finding suggests that at least a moderate number of transfers may be transferring away from what to them are unsatisfactory campus characteristics.

Probably the most challenging question posed by the data has to do with the consistently high means obtained by the academic dismissals. They report more problems, both academic and social, and this may reflect either multiple problems among the group or a tendency to punitiveness in view of their dismissal. (Table 5). This punitiveness, if in fact it is the basis of the high means of the academic dismissals, is both intrapunitive and extrapunitive, since the "reasons" range from those blaming the system (e.g., advising was inadequate) to those blaming the self (e.g., lack of ability to do the work required). However, a more straightforward explanation may suffice: these individuals simply may have more problems, personal and social as well as academic.

TABLE 5

Differences Among Three Types of Withdrawals on 25 Common "Reasons for Withdrawal"

Reasons for Withdrawal	Females					Males				
	Transfers/ Returnees	Voluntary Withdrawals	Academic Dismissals	F-ratio	Per cent Variance	Transfers/ Returnees	Voluntary Withdrawals	Academic Dismissals	F-ratio	Per cent Variance
1. Illness or physical disability (self)	1.15	1.24	1.35	3.26*	1.54	1.09	1.14	1.24	3.59*	1.99
2. Concern about illness or physical disability (family)	1.09	1.16	1.31	5.14**	2.64	1.08	1.10	1.20	2.97	
3. Concern about finances	1.68	1.62	1.39	2.63		1.78	1.95	1.63	3.64*	2.01
4. Upset by difficulties at home	1.15	1.34	1.53	12.54**	5.68	1.16	1.25	1.42	7.42**	4.02
5. College courses were not challenging	1.26	1.23	1.51	4.28**	2.01	1.30	1.43	1.49	3.14*	1.74
6. Not interested in courses	1.37	1.41	2.04	22.28**	9.65	1.50	1.68	1.94	12.99**	6.84
7. Lack of definite plans for major	1.27	1.36	2.06	29.88**	12.53	1.30	1.54	1.80	16.60**	8.58
8. Lack of definite career plans	1.29	1.42	2.04	25.45**	10.88	1.34	1.66	1.95	22.82**	11.42
9. Lack of ability to do work required	1.14	1.24	1.59	18.31**	8.07	1.19	1.19	1.43	8.74**	4.71
10. Secondary school preparation was poor	1.09	1.23	1.67	32.65**	13.54	1.20	1.32	1.64	18.15**	9.30
11. Discouraged by low grades	1.29	1.50	2.18	36.70**	14.97	1.41	1.57	2.01	23.56**	11.75
12. The school was too big	1.02	1.02	1.04	.39		1.03	1.01	1.02	.36	
13. The school was too small	1.73	1.26	1.27	19.66**	8.62	1.48	1.27	1.25	5.41**	2.96
14. Professors lacked interest in students	1.21	1.18	1.59	12.97**	5.69	1.21	1.27	1.29	.72	
15. Professors lacked competence	1.18	1.15	1.33	.29		1.23	1.27	1.30	.55	
16. Advising was inadequate	1.33	1.34	2.10	30.28**	12.74	1.40	1.54	1.81	10.20**	5.45
17. Examinations were unreasonable	1.13	1.15	1.55	21.20**	8.83	1.16	1.22	1.33	3.88*	2.15
18. I did not find enough social life	1.58	1.24	1.16	14.88**	6.66	1.42	1.24	1.24	3.75*	2.08
19. I found too much social life	1.07	1.08	1.55	32.11**	13.34	1.11	1.24	1.57	21.94**	11.03
20. My housing situation caused difficulties	1.24	1.22	1.63	10.15**	4.64	1.29	1.43	1.52	3.77*	2.09
21. Emotional problems	1.34	1.54	1.94	15.18**	6.78	1.36	1.63	1.65	6.62**	3.60
22. The students were not my type	1.30	1.14	1.06	6.31**	2.94	1.31	1.30	1.12	4.90**	2.69
23. I was homesick	1.16	1.11	1.08	1.00		1.06	1.05	1.11	1.08	
24. I was lonely	1.18	1.19	1.10	.78		1.15	1.19	1.23	1.05	
25. My study habits were poor	1.20	1.50	2.45	97.80**	33.36	1.48	1.85	2.46	59.44**	25.14
N	246	123	51			149	79	129		

*$\underline{P} < .05$
**$\underline{P} < .01$

Results from the voluntary withdrawals are midway between the transfers and academic dismissals on most of the items.

Time of Year of Withdrawal. The data in this section show that students who withdrew at different times in the academic year reported different reasons for leaving and had different reactions to the experience. Three "time of year" categories are considered: (a) during one of the two regular academic semesters; (b) at the end of the first semester; and (c) at the end of the second semester.[2]

Data from student post-withdrawal questionnaires are presented in Tables 6 and 7; data from parents are in Tables 8 and 9.

Reasons for Withdrawal: Students who withdrew during one of the regular semesters reported doing so for strikingly different reasons than did students who withdrew at the end of either term. Specifically, in-semester withdrawals averaged higher than end-of-semester withdrawals on each of the following "reasons for withdrawal" (all relationships are statistically significant unless otherwise noted):

Illness or physical disability--self (significant only for females)
Concern about illness or physical disability--family (significant only for females)
Having a baby (not replicated for males)
Emotional problems
Homesick (not replicated for males)
Lonely (significant only for males)
Study habits poor (significant only for males)

In addition, in-semester withdrawals averaged lower than end-of-semester withdrawals on the item "concern about finances" (significant only for females).

Students who withdrew at the end of the second semester were characterized by high means on a relatively homogeneous cluster of "academic" items (significant only for males):

Discouraged by low grades
Lack of ability to do work required
Secondary school preparation was poor
I needed a temporary break from studies

This finding suggests that some students, while officially voluntary withdrawals, may have seen the "handwriting on the wall" and chosen withdrawal before the college took action on academic grounds.

Students who withdrew at the end of the first semester were not characterized by any particular sub-set of "reasons."

---

[2] Data are presented only for students who withdrew voluntarily; all academic dismissals occurred at the end of one of the semesters.

TABLE 6

Relation between Time of Year of Withdrawal and Student Reaction to Withdrawal: Males, Voluntary Withdrawals

	Reasons for Withdrawal	Means Withdrawal during 1st or 2nd sem.	Withdrawal at end of 1st sem.	Withdrawal at end of 2nd sem.	F-ratio	Per cent Variance
1	Illness or physical disability (self)..........	1.20	1.15	1.05	2.48	
2	Concern about illness or physical disability (family)...	1.20	1.04	1.07	2.98	
3	Concern about finances........................	1.73	1.77	1.90	.83	
4	Upset by difficulties at home..................	1.32	1.17	1.16	1.83	
5	College courses were not challenging...........	1.32	1.26	1.38	.70	
6	Not interested in courses......................	1.70	1.51	1.53	1.14	
7	Lack of definite plans for major...............	1.45	1.51	1.31	1.96	
8	Lack of definite career plans..................	1.57	1.49	1.40	1.08	
9	Lack of ability to do work required............	1.27	1.32	1.11	4.50*	3.85
10	Secondary school preparation was poor..........	1.41	1.38	1.13	7.75**	6.44
11	Discouraged by low grades......................	1.66	1.64	1.34	5.55**	4.70
12	The school was too big.........................	1.00	1.02	1.03	.73	
13	The school was too small.......................	1.27	1.34	1.48	1.83	
14	Professors lacked interest in students.........	1.29	1.17	1.24	.77	
15	Professors lacked competence...................	1.16	1.26	1.27	.77	
16	Advising was inadequate........................	1.55	1.40	1.44	.55	
17	Examinations were unreasonable.................	1.14	1.26	1.17	1.07	
18	I did not find enough social life..............	1.39	1.34	1.36	.06	
19	I found too much social life...................	1.27	1.06	1.15	2.97	
20	My housing situation caused difficulties.......	1.39	1.38	1.31	.39	
21	Emotional problems.............................	2.07	1.30	1.31	23.84**	17.49
22	The students were not my type..................	1.32	1.23	1.33	.56	
23	I was homesick.................................	1.05	1.06	1.06	.06	
24	I was lonely...................................	1.32	1.15	1.11	3.25*	2.81
25	My study habits were poor......................	1.86	1.70	1.48	4.65*	3.97
26	Unreasonable college rules and regulations.....	1.43	1.55	1.52	.33	
27	Meals were extremely poor......................	1.14	1.17	1.16	.07	
28	I needed a temporary break from studies........	1.39	1.55	1.14	9.63**	7.89
29	Married recently or will be married soon.......	1.20	1.25	1.10	2.02	
30	My spouse graduated............................	1.00	1.00	1.00		
31	Having a baby..................................	1.05	1.11	1.04	1.12	

TABLE 6 (cont)

Relation between Time of Year of Withdrawal
and Student Reaction to Withdrawal:
Males, Voluntary Withdrawals

		Means				
	Miscellaneous Information	Withdrawal during 1st or 2nd sem.	Withdrawal at end of 1st sem.	Withdrawal at end of 2nd sem.	_F_-ratio	Per cent Variance
32	Number who knew of withdrawal before the fact.....	1.82	2.53	2.41	4.12*	3.53
33	Other students knew..............................	.57	.75	.75	2.92	
34	Faculty advisor knew.............................	.28	.26	.32	.80	
35	Family knew......................................	.64	.91	.85	7.37**	6.15
36	Faculty member knew..............................	.16	.38	.33	3.06*	2.65
37	Resident counselor knew..........................	.23	.25	.18	.58	
38	Decision considered at length....................	2.39	2.72	2.63	2.94	
39	College representatives gave assistance..........	3.00	3.30	2.80	4.10*	3.52
40	Planned to get degree here at time of enrollment..	2.57	2.64	2.53	.44	
41	Most of the hometown "gang" went to college.......	2.41	2.81	2.61	3.61*	3.11
42	Parents have been satisfied with withdrawal.......	2.07	2.38	2.55	6.15**	5.18
43	Parents want me to return to college..............	2.93	2.96	2.91	.64	
44	Plan to return to this college....................	1.68	1.53	1.58	.42	
45	Plan to continue college work elsewhere...........	2.57	2.66	2.75	1.47	
46	Experiences after withdrawal should be helpful in any future college work....	2.75	2.74	2.41	7.41**	6.18
47	Now have reasonably clear plans for the distant future...	2.55	2.72	2.56	1.30	
	_N_	44	53	131		

$^{*}\underline{p} < .05$
$^{**}\underline{p} < .01$

TABLE 7

Relation between Time of Year of Withdrawal and Student Reaction to Withdrawal: Females, Voluntary Withdrawals

	Reasons for Withdrawal	Means Withdrawal during 1st or 2nd sem.	Withdrawal at end of 1st sem.	Withdrawal at end of 2nd sem.	F-ratio	Per cent Variance
1	Illness or physical disability (self)...........	1.92	1.18	1.07	51.02**	21.80
2	Concern about illness or physical disability (family)....	1.35	1.12	1.08	6.99**	3.68
3	Concern about finances..........................	1.14	1.71	1.73	8.31**	4.35
4	Upset by difficulties at home...................	1.16	1.28	1.21	.67	
5	College courses were not challenging............	1.24	1.25	1.26	.02	
6	Not interested in courses.......................	1.38	1.57	1.34	1.32*	1.70
7	Lack of definite plans for major................	1.16	1.35	1.31	1.14	
8	Lack of definite career plans...................	1.16	1.42	1.34	1.84	
9	Lack of ability to do work required.............	1.27	1.18	1.15	1.14	
10	Secondary school preparation was poor...........	1.27	1.14	1.11	2.49	
11	Discouraged by low grades.......................	1.54	1.38	1.33	1.77	
12	The school was too big..........................	1.05	1.00	1.02	1.43	
13	The school was too small........................	1.43	1.63	1.58	.74	
14	Professors lacked interest in students..........	1.24	1.18	1.19	.18	
15	Professors lacked competence....................	1.08	1.11	1.20	2.02	
16	Advising was inadequate.........................	1.49	1.42	1.29	2.26	
17	Examinations were unreasonable..................	1.19	1.11	1.13	.50	
18	I did not find enough social life...............	1.30	1.54	1.47	1.33	
19	I found too much social life....................	1.08	1.11	1.06	.63	
20	My housing situation caused difficulties........	1.41	1.28	1.20	2.60	
21	Emotional problems..............................	1.84	1.51	1.32	9.72**	5.04
22	The students were not my type...................	1.27	1.25	1.24	.05	
23	I was homesick..................................	1.41	1.12	1.12	6.71**	3.54
24	I was lonely....................................	1.32	1.25	1.15	2.81	
25	My study habits were poor.......................	1.51	1.28	1.28	2.71	
26	Unreasonable college rules and regulations......	1.22	1.42	1.33	1.23	
27	Meals were extremely poor.......................	1.16	1.09	1.10	.47	
28	I needed a temporary break from studies.........	1.46	1.40	1.25	2.86	
29	Married recently or will be married soon........	1.60	1.40	1.45	.69	
30	My spouse graduated.............................	1.08	1.00	1.14	2.60	
31	Having a baby...................................	1.24	1.15	1.06	4.28*	2.29

TABLE 7 (cont)

Relation between Time of Year of Withdrawal and Student Reaction to Withdrawal Females, Voluntary Withdrawals

Miscellaneous Information		Withdrawal during 1st or 2nd sem.	Means Withdrawal at end of 1st sem.	Withdrawal at end of 2nd sem.	$\underline{F}$-ratio	Per cent Variance
32	Number who knew of withdrawal before the fact	2.24	2.77	2.65	1.76	
33	Other students knew	.57	.78	.80	5.02**	2.67
34	Faculty advisor knew	.27	.32	.39	1.41	
35	Family knew	.90	.97	.91	.94	
36	Faculty member knew	.27	.48	.34	2.62	
37	Resident counselor knew	.35	.26	.25	.72	
38	Decision considered at length	1.86	2.58	2.73	29.25**	13.78
39	College representatives gave assistance	3.24	3.20	2.82	4.87**	2.59
40	Planned to get degree here at time of enrollment	2.57	2.66	2.63	.25	
41	Most of the hometown "gang" went to college	2.78	2.75	2.78	.05	
42	Parents have been satisfied with withdrawal	2.38	2.57	2.66	2.83	
43	Parents want me to return to college	2.90	2.90	2.88	.01	
44	Plan to return to this college	1.27	1.68	1.39	4.54*	2.42
45	Plan to continue college work elsewhere	2.65	2.52	2.70	1.81	
46	Experiences after withdrawal should be helpful in any future college work	2.65	2.58	2.44	2.51	
47	Now have reasonably clear plans for the distant future	2.68	2.77	2.57	2.44	
$\underline{N}$		37	65	267		

*$\underline{p} < .05$
**$\underline{p} < .01$

TABLE 8

Relation between Time of Year of Withdrawal and Parental Reaction to Withdrawal: Males, Voluntary Withdrawals

	Mean				
Variable	Withdrawal during semester	Withdrawal at end of 1st sem.	Withdrawal at end of 2nd sem.	F-ratio	Per cent Variance
1 Had known beforehand that withdrawal was being contemplated	2.63	3.52	3.76	34.67**	26.43
2 Had a part in the decision to withdraw	2.63	3.23	3.38	12.18**	11.21
3 College representatives gave ample assistance	3.00	2.77	2.77	.73	
4 Student planned to get degree here at time of enrollment	2.80	2.54	2.65	2.44	
5 Student derived benefits from the college experience	2.46	2.83	2.83	7.90**	7.57
6 Have been satisfied with the withdrawal	1.96	2.40	2.41	5.83**	5.70
7 Want student to return to college	2.93	2.96	2.95	.18	
8 Student plans to return to this college	1.37	1.38	1.56	1.49	
9 Student plans to continue college work elsewhere	2.57	2.73	2.77	1.85	
N	46	52	98		

*$p < .05$
**$p < .01$

TABLE 9

Relation between Time of Year of Withdrawal and Parental Reaction to Withdrawal: Females, Voluntary Withdrawals

Variable	Mean			*F*-ratio	Per cent Variance
	Withdrawal during semester	Withdrawal at end of 1st sem.	Withdrawal at end of 2nd sem.		
1 Had known beforehand that withdrawal was being contemplated	3.03	3.63	3.88	30.73**	19.12
2 Had a part in the decision to withdraw	3.31	3.27	3.45	1.52	
3 College representatives gave ample assistance	3.28	2.87	2.70	3.93*	2.94
4 Student planned to get degree here at time of enrollment	2.69	2.65	2.62	.27	
5 Student derived benefits from the college experience	2.53	2.75	2.84	5.34**	3.94
6 Have been satisfied with the withdrawal	2.33	2.48	2.59	2.39	
7 Want student to return to college	2.64	2.75	2.83	2.48	
8 Student plans to return to *this* college	1.14	1.27	1.28	.80	
9 Student plans to continue college work elsewhere	2.50	2.40	2.64	2.29	
N	36	52	175		

*$p < .05$
**$p < .01$

The Process of Withdrawal: In-semester withdrawals reported that relatively few persons were aware of the impending withdrawal before it took place (significant only for males), and indicated that the decision was considered at less length than for students who withdrew at the end of one of the semesters. Consistent with this, parents of in-semester withdrawals indicated that they had known for a shorter time beforehand that withdrawal was being contemplated. Further, parents reported that they had a larger part in the decision to withdraw when it was made at the end of the second semester than when it was made during one of the semesters (significant only for males). Both students and parents, however, reported that the representatives of the college provided more assistance when the withdrawal occurred during the school year than when it occurred at the end of the year (significant only for females).

Reactions to Withdrawal: Reports of both students and parents indicate that parents were most satisfied with the withdrawal when it occurred at the end of the second semester, and least satisfied when it occurred during one of the semesters. Further, parents tended to be less sure that their child had derived benefits from his college experience when the withdrawal occurred during one of the semesters.

Students who withdrew at the end of the second semester tended to be relatively pessimistic about the expected value of their post-withdrawal experience. These students indicated that if and when they returned to college work their activities while out of school would be of relatively less value than did students who withdrew at other times during the academic year. It may be that students perceive withdrawal which occurs at the end of the second semester as relatively more "terminal" than withdrawal at other times during the year--perhaps thereby accounting for the more pessimistic response of end-of-year withdrawals to this item.

Class Standing at the Time of Withdrawal. Data presented in this section show that the relationship between class standing (i.e., freshman, sophomore, junior, senior) at the time of withdrawal and post-withdrawal reactions is generally weak, and often is not consistent for males and females.

The reactions of students of different classes to the withdrawal experience are presented in Tables 10 and 11. Data for parents are presented in Tables 12 and 13. No data from academic dismissals are included, because of very small sample sizes in the upper classes. Senior voluntary withdrawals are omitted from the analyses reported here for the same reason.

Only two tentative trends were apparent in the results. First, freshmen were distinguished by high scores on several items reflective of difficulty in making adequate adjustment to the college experience:

I did not find enough social life (significant only for males)
My housing situation caused difficulties (significant only for females)

TABLE 10

Relation between Class Standing at Time of Withdrawal
and Student Reaction to Withdrawal:
Males, Voluntary Withdrawals

Reasons for Withdrawal	Means Freshmen	Sophomores	Juniors	Seniors^a	F-ratio	Per Cent Variance
1 Illness or physical disability (self)	1.10	1.09	1.00		.71	
2 Concern about illness or physcial disability (family)	1.10	1.10	1.04		.29	
3 Concern about finances	1.83	1.93	1.69		.73	
4 Upset by difficulties at home	1.19	1.20	1.23		.07	
5 College courses were not challenging	1.35	1.33	1.38		.06	
6 Not interested in courses	1.56	1.57	1.62		.07	
7 Lack of definite plans for major	1.42	1.32	1.38		.51	
8 Lack of definite career plans	1.44	1.40	1.62		.97	
9 Lack of ability to do work required	1.17	1.20	1.27		.48	
10 Secondary school preparation was poor	1.26	1.22	1.27		.16	
11 Discouraged by low grades	1.49	1.41	1.58		.63	
12 The school was too big	1.03	1.01	1.00		.88	
13 The school was too small	1.52	1.32	1.27		2.67	
14 Professors lacked interest in students	1.25	1.21	1.19		.25	
15 Professors lacked competence	1.21	1.28	1.31		.70	
16 Advising was inadequate	1.50	1.40	1.42		.50	
17 Examinations were unreasonable	1.17	1.20	1.23		.25	
18 I did not find enough social life	1.57	1.15	1.19		11.12**	9.22
19 I found too much social life	1.12	1.26	1.00		4.27*	3.75
20 My housing situation caused difficulties	1.38	1.32	1.19		.97	
21 Emotional problems	1.45	1.42	1.62		.72	
22 The students were not my type	1.40	1.17	1.31		3.41*	3.02
23 I was homesick	1.07	1.04	1.04		.41	
24 I was lonely	1.19	1.16	1.04		1.14	
25 My study habits were poor	1.57	1.64	1.65		2.33	
26 Unreasonable college rules and regulations	1.58	1.42	1.50		1.19	
27 Meals were extremely poor	1.20	1.14	1.04		1.57	
28 I needed a temporary break from studies	1.17	1.40	1.35		3.31*	2.93
29 Married recently or will be married soon	1.12	1.17	1.19		.40	
30 My spouse graduated	1.00	1.00	1.00			
31 Having a baby	1.04	1.06	1.04		.12	

TABLE 10 (cont)

Relation between Class Standing at Time of Withdrawal
and Student Reaction to Withdrawal:
Males, Voluntary Withdrawals

Miscellaneous Information	Means Freshmen	Sophomores	Juniors	Seniors[a]	F-ratio	Per Cent Variance
32 Number who knew of withdrawal before the fact..........	2.23	2.33	2.88		2.51	
33 Other students knew..................................	.70	.72	.88		1.93	
34 Faculty advisor knew.................................	.22	.30	.58		7.03**	6.04
35 Family knew...	.83	.81	.88		.34	
36 Faculty member knew..................................	.28	.31	.46		1.67	
37 Resident counselor knew..............................	.21	.25	.08		1.49	
38 Decision considered at length........................	2.62	2.60	2.73		.36	
39 College representatives gave assistance...............	2.90	3.00	3.00		.21	
40 Planned to get degree here at time of enrollment.......	2.52	2.63	2.46		.80	
41 Most of the hometown "gang" went to college............	2.59	2.73	2.42		1.87	
42 Parents have been satisfied with withdrawal............	2.46	2.36	2.42		.38	
43 Parents want me to return to college..................	2.90	2.94	2.96		.54	
44 Plan to return to this college..........................	1.58	1.57	1.54		.03	
45 Plan to continue college work elsewhere................	2.75	2.69	2.65		.37	
46 Experiences after withdrawal should be helpful in any future college work......	2.57	2.54	2.58		.04	
47 Now have reasonably clear plans for the distant future.	2.51	2.69	2.65		2.06	
N	115	81	26			

[a] Too small a sample for analysis (N 15)

*$p < .05$
**$p < .01$

TABLE 11

Relation between Class Standing at Time of Withdrawal
and Student Reaction to Withdrawal:
Females, Voluntary Withdrawals

Reasons for Withdrawal	Means Freshmen	Sophomores	Juniors	Seniors[a]	F-ratio	Per cent Variance
1 Illness or physical disability (self).................	1.24	1.11	1.16		2.30	
2 Concern about illness or physical disability (family).	1.16	1.08	1.06		2.28	
3 Concern about finances............................	1.78	1.65	1.35		5.10**	2.75
4 Upset by difficulties at home........................	1.24	1.19	1.20		.32	
5 College courses were not challenging................	1.28	1.26	1.16		.90	
6 Not interested in courses...........................	1.37	1.43	1.35		.38	
7 Lack of definite plans for major.....................	1.26	1.39	1.16		3.27*	1.78
8 Lack of definite career plans.........................	1.30	1.41	1.22		2.17	
9 Lack of ability to do work required..................	1.15	1.20	1.14		.50	
10 Secondary school preparation was poor.................	1.15	1.12	1.10		.48	
11 Discouraged by low grades...........................	1.34	1.34	1.45		.59	
12 The school was too big.............................	1.02	1.01	1.04		.92	
13 The school was too small...........................	1.68	1.52	1.41		2.68	
14 Professors lacked interest in students...............	1.18	1.20	1.24		.17	
15 Professors lacked competence.........................	1.15	1.18	1.22		.42	
16 Advising was inadequate..............................	1.34	1.31	1.37		.16	
17 Examinations were unreasonable.......................	1.14	1.10	1.22		1.49	
18 I did not find enough social life.....................	1.55	1.44	1.27		2.93	
19 I found too much social life.........................	1.09	1.04	1.08		1.08	
20 My housing situation caused difficulties..............	1.34	1.14	1.16		5.65**	3.03
21 Emotional problems...................................	1.49	1.28	1.45		3.46*	1.88
22 The students were not my type.........................	1.33	1.16	1.20		3.69*	2.00
23 I was homesick.......................................	1.22	1.09	1.08		3.63*	1.97
24 I was lonely...	1.28	1.09	1.14		6.18**	3.31
25 My study habits were poor............................	1.32	1.29	1.14		.21	
26 Unreasonable college rules and regulations...........	1.41	1.29	1.27		.29	
27 Meals were extremely poor.............................	1.14	1.08	1.08		.87	
28 I needed a temporary break from studies...............	1.29	1.31	1.25		.17	
29 Married recently or will be married soon.............	1.29	1.50	1.82		9.29**	4.90
30 My spouse graduated..................................	1.02	1.15	1.31		9.72**	5.11
31 Having a baby..	1.07	1.11	1.12		.48	

TABLE 11 (cont)

Relation between Class Standing at Time of Withdrawal and Student Reaction to Withdrawal: Females, Voluntary Withdrawals

Miscellaneous Information	Means Freshmen	Sophomores	Juniors	Seniors[a]	F-ratio	Per cent Variance
32 Number who knew of withdrawal before the fact.......	2.33	2.85	2.96		7.30**	3.89
33 Other students knew..............................	.74	.81	.75		1.43	
34 Faculty advisor knew.............................	.26	.45	.49		7.74**	4.11
35 Family knew......................................	.88	.93	.98		1.62	
36 Faculty member knew..............................	.24	.41	.61		13.35**	6.89
37 Resident counselor knew..........................	.24	.24	.39		2.28	
38 Decision considered at length....................	2.55	.27	2.63		1.88	
39 College representatives gave assistance..........	2.81	2.99	3.04		1.49	
40 Planned to get degree here at time of enrollment....	2.53	2.68	2.82		4.62*	2.49
41 Most of the hometown "gang" went to college........	2.78	2.80	2.75		.14	
42 Parents have been satisfied with withdrawal.........	2.58	2.66	2.61		.54	
43 Parents want me to return to college................	2.86	2.90	2.92		.41	
44 Plan to return to this college....................	1.39	1.36	1.65		.28	
45 Plan to continue college work elsewhere.............	2.69	2.66	2.65		.13	
46 Experiences after withdrawal should be helpful in any future college work...	2.53	2.43	2.49		.92	
47 Now have reasonably clear plans for the distant future.....	2.58	2.63	2.67		.29	
N	170	143	51			

[a] Too small a sample for analysis (N 15)

*$p < .05$
**$p < .01$

TABLE 12

Relation between Class Standing at Time of Withdrawal and Parent Reaction to Withdrawal: Males, Voluntary Withdrawals

Variable	Freshmen	Sophomores	Juniors	Seniors[a]	F-ratio	Per cent Variance
1 Had known beforehand that withdrawal was being contemplated	3.51	3.43	3.41		.22	
2 Had a part in the decision to withdraw	3.26	3.14	3.05		.62	
3 College representatives gave ample assistance	2.98	2.63	2.82		1.90	
4 Student planned to get degree here at time of enrollment	2.58	2.70	2.73		1.03	
5 Student derived benefits from the college experience	2.63	2.82	2.82		2.36	
6 Have been satisfied with the withdrawal	2.34	2.29	2.41		2.26	
7 Want student to return to college	2.96	2.96	2.86		1.73	
8 Student plans to return to this college	1.52	1.34	1.64		1.89	
9 Student plans to continue college work elsewhere	2.69	2.75	2.73		.22	
N	90	76	22			

[a] Too small a sample for analysis ($N < 15$)

*$p < .05$
**$p < .01$

TABLE 13

Relation between Class Standing at Time of Withdrawal and Parent Reaction to Withdrawal: Females, Voluntary Withdrawals

Variable	Freshmen	Sophomores	Juniors	Seniors[a]	F-ratio	Per cent Variance
1 Had known beforehand that withdrawal was being contemplated	3.70	3.82	3.56		2.14	
2 Had a part in the decision to withdraw	3.43	3.45	3.18		2.01	
3 College representatives gave ample assistance	2.86	2.77	2.71		.32	
4 Student planned to get degree here at time of enrollment	2.57	2.59	2.94		5.17**	3.88
5 Student derived benefits from the college experience	2.76	2.79	2.82		.23	
6 Have been satisfied with the withdrawal	2.55	2.51	2.62		.32	
7 Want student to return to college	2.80	2.77	2.76		.19	
8 Student plans to return to this college	1.24	1.29	1.14		.68	
9 Student plans to continue college work elsewhere	2.64	2.53	2.53		.70	
N	127	98	34			

[a] Too small a sample for analysis ($N < 15$)

*$p < .05$
**$p < .01$

The students were not my type
I was homesick (significant only for females)
I was lonely (significant only for females)

Secondly, as class standing increased (a) students reported that more persons (especially faculty members) were aware of the impending withdrawal before it occurred, and (b) females reported more often that they had withdrawn to get married--or because their spouse had graduated.

Differences Among Categories of Students

Mean Differences Among Four Categories of Students on Pre-College Data, Early College Instruments and the Questionnaire to Freshman Parents. This section reports differences among four categories of students on data available prior to college enrollment or made available through orientation testing and parent questionnaires.

The four categories are: (a) students who have persisted in college through the tenure of the present study; (b) students who voluntarily withdraw from college and either transferred to another institution or returned later to the original school; (c) students who voluntarily withdrew but did not transfer or re-enroll during the tenure of the study; and (d) students who were dismissed from college on academic grounds. Measures on which students in these four categories were compared include: (a) scores on the Opinion, Attitude and Interest Survey (OAIS) and Scholastic Aptitude Test (SAT); (b) high school rank in class, in decile form; (c) declared academic major; and (d) scores on items from the Biographical Data Sheet and the Parents' Questionnaire.

Differences among students in the four categories on these measures were tested by analysis of variance, and results are presented in Tables 14 through 21. A total of 94 relationships were tested separately for males and females. Of these, eight statistically significant differences were obtained for males and 21 obtained for females. These 29 significant differences accounted for an average of about one per cent of the total variance of scores on these items; this indicates that the relationships generally are not of substantial magnitude, even though they are statistically reliable.[3]

---

[3] The low percentages of variance accounted for by the relationships may be partly a function of the numbers of students in the four categories. Even though this study deals with a total sample of over 2,000 students, the number of withdrawals and dismissals is relatively small. For some analyses the number of students in some of the categories of withdrawals is as low as 20; the smallest number in the "persistence" category is 501. This makes achievement of statistically significant results difficult, and virtually insures that the bulk of the variance of scores on any given item will be within the "persistence" category, rather than between this category and the other smaller categories. This effect may be observed in Table 14. The scores of students on variable item #17 reveal that males who were dismissed on academic grounds had high school ranks which were noticeably lower than those of students in the other categories. Yet this difference--a matter of almost two deciles--is not statistically reliable, and differences among the four categories account for only one-fourth of one per cent of the total variance of the scores.

TABLE 14

COMPARISON OF OAIS SCORES, COLLEGE BOARD SCORES, AND HIGH SCHOOL RANK OF PERSISTERS AND THREE CATEGORIES OF DROPS: MALES[a]

VARIABLE	GROUP				F-ratio	PER CENT VARIANCE
	Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
# 1 Set T[b]	49.37	48.40	50.69	49.14	.71	.12
# 2 Inf R	50.58	52.11	53.46	53.14	2.47	.42
# 3 Soc U	53.66	51.59	51.65	51.64	2.04	.35
# 4 Ach P	48.60	48.41	45.79	43.62	1.78	.31
# 5 Int Q	51.41	52.57	50.31	47.92	.84	.15
# 6 Cre P	49.39	52.30	51.85	50.60	4.43**	.76
# 7 Soc A	49.69	48.48	45.88	48.88	3.55*	.61
# 8 Emo A	47.65	47.67	49.63	49.15	.80	.14
# 9 Mas O	46.80	46.58	49.93	49.20	1.77	.31
# 10 Bus	44.49	43.42	43.65	47.05	.58	.10
# 11 Hum	43.77	45.34	43.50	41.13	.75	.13
# 12 Soc	45.96	47.04	45.26	45.33	.58	.10
# 13 Phy	45.72	45.37	46.55	43.43	.20	.03
# 14 Bio	43.13	42.24	42.42	42.64	.35	.06
# 15 SAT-V	525.52	519.05	499.30	478.60	2.30	.40
# 16 SAT-Q	580.45	567.12	544.93	530.72	4.03**	.69
# 17 H.S.Rank	6.639	6.508	6.06	4.63	1.47	.25
N	777	120	63	98		

$^{*}p < .05$
$^{**}p < .01$

---

[a] Includes data from both the 1963 and 1964 samples

[b] OAIS scores are in standard form with X=50, s.d.=10

The scores of students on variable item #17 reveal that males who were dismissed on academic grounds had high school ranks which were noticeably lower than those of students in the other categories. Yet this difference--a matter of almost two deciles--is not statistically reliable, and differences among the four categories account for only one-fourth of one per cent of the total variance of the scores.

TABLE 15

COMPARISON OF OAIS SCORES, COLLEGE BOARD SCORES, AND HIGH SCHOOL RANK OF PERSISTERS AND THREE CATEGORIES OF DROPS: FEMALES[a]

VARIABLE	GROUP				F-ratio	PER CENT VARIANCE
	Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
# 1 Set T	48.05	47.31	48.91	48.40	.53	.08
# 2 Inf R	47.56	47.46	51.20	48.20	4.12**	.59
# 3 Soc U	51.13	50.80	50.70	47.51	.10	.01
# 4 Ach P	52.50	52.56	50.34	48.96	1.66	.24
# 5 Int Q	53.19	52.47	50.70	49.61	2.19	.31
# 6 Cre P	47.10	48.50	49.83	50.14	3.03*	.43
# 7 Soc A	49.85	48.76	47.08	47.75	3.40*	.49
# 8 Emo A	45.80	46.22	44.30	45.96	.81	.12
# 9 Mas O	45.42	45.92	47.58	47.07	1.27	.18
# 10 Bus	41.55	41.01	41.14	40.72	.21	.03
# 11 Hum	46.00	46.82	48.68	44.20	2.15	.31
# 12 Soc	45.96	47.50	44.91	45.75	1.77	.25
# 13 Phy	44.35	43.30	43.29	41.94	.82	.12
# 14 Bio	45.83	46.24	45.01	46.48	.28	.04
# 15 SAT-V	545.47	530.67	529.86	485.48	2.67*	.38
# 16 SAT-Q	544.04	516.86	510.74	470.53	8.89**	1.26
# 17 H.S.Rank	7.832	7.586	7.273	5.129	5.01**	.71
N	915	167	95	54		

*$p < .05$
**$p < .01$

---

[a] Includes data from both the 1963 and 1964 samples.
[b] OAIS scores are in standard form, with X=50, s.d.=10.

TABLE 16

COMPARISON OF SCORES ON ITEMS FROM THE BIOGRAPHICAL
DATA SHEET FOR PERSISTERS AND THREE
CATEGORIES OF DROPS: MALES

	VARIABLE	GROUP				F-ratio	PER CENT VARIANCE
		Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
1.	Age	1.76	1.78	1.92	1.82	.63	.17
2.	Size of home community	3.57	3.43	3.64	3.68	.22	.06
3.	Size of high school graduating class	3.56	3.57	2.96	3.68	2.62*	.70
4.	Lack of participation in high school activities	2.51	2.38	2.64	2.88	.46	.12
5.	Few high school classmates continuing in college	1.93	2.08	2.00	1.80	.50	.13
6.	Father's educational level	3.21	3.27	2.72	2.90	1.29	.34
7.	Mother's educational level	2.85	2.98	2.40	2.92	1.90	.50
8.	Few other members of family attend the institution	4.50	4.68	4.80	4.60	1.15	.31
9.	Strained relationships with family	1.67	1.58	1.92	1.78	.87	.23
10.	Live with persons other than parents	1.14	1.02	1.12	1.22	.92	.24
11.	Infrequent church attendance	1.58	1.90	1.92	1.65	.37	.97
12.	Distance from home to educational institution	3.81	3.87	3.32	3.65	1.74	.46
13.	Portion of college expenses student is responsible for	2.69	2.60	2.64	2.48	.10	.03
14.	Lack of a job during the academic year	1.75	1.78	1.76	1.95	.14	.04
15.	Lack of a definite major	1.84	1.78	1.64	1.70	.65	.17

TABLE 16 (cont)

VARIABLE	GROUP				F-ratio	PER CENT VARIANCE
	Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
16. Lack of a definite career plan	1.98	1.90	1.88	1.88	.29	.08
17. Highest level of education planned	4.69	4.63	4.48	4.62	.31	.08
18. Plans for continuance in present college (vs. plans to transfer)	3.33	3.15	2.84	3.35	3.19*	.84
19. Earliness of decision to attend college	3.87	3.87	3.56	3.85	.37	.10
Reasons for Going to College						
20. Serious intellectual curiosities which only college could satisfy	2.74	2.68	2.64	2.45	.24	.06
21. Compelling interest in one particular field	2.81	2.78	3.04	3.08	.42	.11
22. Find out more about certain fields	3.12	3.08	3.08	3.15	.12	.03
23. Enjoy studying	2.58	2.58	2.40	2.18	.28	.07
24. Degree necessary for desired kind of work	3.81	3.78	3.76	3.95	.07	.02
25. Preparation for better paying job	3.60	3.40	3.56	3.70	1.24	.33
26. Explore several lines of work to test interest	2.75	2.47	2.56	2.65	1.41	.37
27. Live an easier life	2.91	2.87	2.88	3.10	.04	.01
28. College contact advantageous in finding a position	2.27	1.93	2.32	2.38	2.30	.61
29. Make new friends	2.75	2.80	2.64	2.95	.19	.05
30. Respected persons in community had gone	2.28	2.02	1.88	2.35	1.98	.52

TABLE 16 (cont)

VARIABLE	GROUP				F-ratio	PER CENT VARIANCE
	Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
31. Learn to get along with other people	2.31	2.22	2.44	2.12	.32	.08
32. Most friends were going	2.19	1.92	2.32	2.05	1.43	.38
33. Help develop socially	2.50	2.37	2.48	2.42	.43	.11
34. Close fellowship of dormitory or Greek house	2.13	2.03	1.80	2.12	1.13	.30
35. Help to become more influential in community affairs	2.52	2.47	2.40	2.35	.16	.04
36. Meet marriage partner	1.92	1.75	1.72	1.80	1.10	.29
37. Help become a better spouse	2.25	2.25	2.20	2.02	.02	.00
38. Not much to do around home	1.32	1.13	1.16	1.28	1.73	.46
39. Community leaders encouraged	2.37	2.03	2.52	2.30	2.12	.56
40. Acquire qualifications for civic leadership	2.48	2.28	2.56	2.20	.80	.21
41. Was always expected	2.98	2.82	2.68	2.95	.92	.25
42. Parents insisted	2.11	1.80	2.16	1.98	1.29	.34
43. Young people in family have always gone	1.71	1.58	1.56	1.65	.41	.11
N	523	59	25	40		

*$p < .05$
**$p < .01$

TABLE 17

COMPARISON OF SCORES ON ITEMS FROM THE BIOGRAPHICAL DATA SHEET FOR PERSISTERS AND THREE CATEGORIES OF DROPS: FEMALES

VARIABLE	GROUP				F-ratio	PER CENT VARIANCE
	Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
1. Age	1.67	1.76	1.68	1.65	.68	.15
2. Size of home community	3.62	3.51	3.05	3.58	3.31*	.73
3. Size of high school graduating class	3.69	3.62	3.35	3.27	1.49	.33
4. Lack of participation in high school activities	2.26	2.35	2.51	2.81	1.25	.28
5. Few high school classmates continuing in college	1.94	2.16	2.03	1.50	1.70	.38
6. Father's educational level	3.28	3.19	2.95	3.12	.93	.21
7. Mother's educational level	2.93	2.91	2.57	2.58	1.31	.29
8. Few other members of family attend the institution	4.59	4.66	4.46	4.23	.38	.08
9. Strained relationships with family	1.55	1.68	1.89	2.08	2.95*	.65
10. Live with persons other than parents	1.08	1.07	1.43	1.04	10.18**	2.21
11. Infrequent church attendance	1.33	1.51	1.62	1.69	3.44*	.76
12. Distance from home to educational institution	3.80	3.77	3.57	4.23	.60	.13
13. Portion of college expenses student is responsible for	2.19	2.41	2.59	1.69	1.61	.36
14. Lack of a job during the academic year	1.78	1.64	1.57	1.85	3.10*	.68
15. Lack of a definite major	1.71	1.74	1.73	1.65	.08	.02

TABLE 17 (cont)

VARIABLE	GROUP				F-ratio	PER CENT VARIANCE
	Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
16. Lack of a definite career plan	1.84	1.85	1.89	1.69	.06	.01
17. Highest level of education planned	4.34	4.32	4.08	4.19	2.28	.50
18. Plans for continuance in present college (vs. plans to transfer)	3.44	2.97	3.03	3.35	9.01**	1.96
19. Earliness of decision to attend college	4.07	4.05	3.43	4.23	2.63*	.58
Reasons for Going to College						
20. Serious intellectual curiosities which only college could satisfy	2.98	3.12	2.92	2.65	.69	.15
21. Compelling interest in one particular field	2.98	2.84	3.32	2.96	1.71	.38
22. Find out more about certain fields	3.28	3.22	3.24	3.00	.14	.03
23. Enjoy studying	3.04	2.97	2.97	2.69	.17	.04
24. Degree necessary for desired kind of work	3.73	3.68	3.76	3.50	.14	.03
25. Preparation for better paying job	3.26	3.35	3.38	3.00	.35	.08
26. Explore several lines of work to test interest	2.66	2.76	2.03	2.31	3.98**	.86
27. Live an easier life	2.50	2.61	2.32	2.23	.55	.12
28. College contacts advantageous in finding a position	1.99	1.88	1.86	1.96	.41	.09
29. Make new friends	3.06	3.16	3.03	3.08	.34	.07
30. Respected persons in community had gone	2.34	2.38	2.11	2.38	.56	.12

TABLE 17 (cont)

	VARIABLE	GROUP				F-ratio	PER CENT VARIANCE
		Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
31.	Learn to get along with other people	2.66	2.69	2.65	2.73	.02	.00
32.	Most friends were going	2.20	2.35	2.03	2.38	.96	.21
33.	Help develop socially	2.73	2.88	2.39	2.31	.86	.19
34.	Close fellowship of dormitory or Greek house	2.52	2.50	2.08	2.19	2.52	.56
35.	Help to become more influential in community affairs	2.22	2.24	2.27	1.81	.03	.01
36.	Meet marriage partner	2.42	2.41	1.97	1.77	2.39	.53
37.	Help become a better spouse	2.97	3.15	3.11	2.65	.94	.21
38.	Not much to do around home	1.33	1.32	1.62	1.50	2.20	.49
39.	Community leaders encouraged	2.23	2.26	2.51	2.50	.92	.20
40.	Acquire qualifications for civic leadership	2.19	2.31	2.22	2.04	.35	.08
41.	Was always expected	2.92	2.77	2.81	3.15	.53	.12
42.	Parents insisted	1.77	1.89	1.84	2.19	.35	.08
43.	Young people in family have always gone	1.67	1.74	1.76	1.81	.21	.05
	N	623	74	37	26		

$^{*}p < .05$
$^{**}p < .01$

TABLE 18

RELATION BETWEEN DECLARED MAJOR OF FRESHMEN AND PERSISTANCE[a]

MALES

Major[b]

	No Maj	Bus	Hum	Art	Mus	Soc S	Educ	Phys Ed	Phy Si	Bio Sci
Persisters										
Frequency	85	62	85	7	8	115	5	6	127	94
Expected Freq.	103	57	85	6	7	116	8	6	119	87
Difference	-18	5	0	1	1	-1	-3	0	8	7
Transfers										
Frequency	22	7	21	1	0	28	3	0	16	14
Expected Freq.	19	11	16	1	1	22	2	1	22	16
Difference	3	-4	5	0	-1	6	1	-1	-6	-2
Voluntary Drop										
Frequency	17	5	6	0	0	8	2	1	11	7
Expected Freq.	10	6	8	0	1	11	1	0	11	8
Difference	7	-1	-2	0	-1	-3	1	1	0	-1
Academic Drop										
Frequency	24	8	11	0	2	17	2	1	18	11
Expected Freq.	16	9	13	1	1	18	1	1	19	14
Difference	8	-1	-2	-1	1	-1	1	0	-1	-3

FEMALES[c]

Major

	No Maj	Bus	Hum	Art	Mus	Soc S	Educ	Phys Ed	Phy Si	Bio Sci
Persisters										
Frequency	59	10	203	16	18	109	139	18	75	50
Expected Freq.	82	9	190	16	17	114	130	18	73	47
Difference	-23	1	13	0	1	-5	9	0	2	3
Transfers										
Frequency	25	1	36	3	1	27	22	5	14	8
Expected Freq.	17	2	39	3	3	23	26	4	15	10
Difference	8	-1	-3	0	-2	4	-4	1	-1	-2
Voluntary Drops										
Frequency	16	0	15	3	2	15	9	1	6	6
Expected Freq.	9	1	20	2	2	12	14	2	8	5
Difference	7	-1	-5	1	0	3	-5	-1	-2	1
Academic Drop										
Frequency	14	1	9	0	3	7	10	1	6	1
Expected Freq.	6	1	14	1	1	8	10	1	5	4
Difference	8	0	-5	-1	2	-1	0	0	1	3

[a] For all students in the 1963 and 1964 samples except 1963 Wittenberg freshmen, for whom data on majors were not available

[b] $xx^2=47.6$, df=36; $p < .01$

[c] $xx^2=34.8$, df=36; n.s.

Nevertheless, those relationships which were statistically significant offer consistent support for the primary hypothesis of the research--namely, that the commitment of a student and his family to higher education as the major opportunity of post-high school years will be an important factor in differentiating students who withdraw or are dismissed from those who persist.

Several lines of evidence provide support for the hypothesis. First, the parents of each incoming freshman were asked directly by questionnaire about their child's commitment to higher education as follows:

> Students vary in their levels of commitment to higher education. Some regard it as the major opportunity offered to their age group, while others would have lower levels of commitment. How would you classify the commitment of your child? (Check one).
>
> ________ High level of commitment (scored 3)
> ________ Moderate level of commitment (scored 2)
> ________ Low level of commitment (scored 1)
> (Scoring not included in the questionnaire)

Although nearly all parents responded that their child's commitment was "moderate" or "high," parents of students who subsequently persisted in the same institution or transferred to another school scored higher than did parents of students who withdrew from school entirely, or who were academically dismissed (statistically significant only for females). Further, parents of students who persisted in the same school averaged higher than those of students who transferred, and parents of academic drops averaged higher than those of voluntary drops. This latter finding is as would be expected: many students who were academically dismissed probably would have persisted had the college given them the opportunity.

In another item parents were asked to indicate the importance which they themselves attached to a college education for their offspring. For females, parents of persisters scored highest, and parents of voluntary withdrawals scored lowest; for males, persisters and transfers were high and voluntary and academic withdrawals were low. The differences were significant for both sexes, again supporting the hypothesis of the study. (Tables 19 and 20).

A second line of evidence has to do with the earliness with which the decision that the child would attend college was made. (Tables 19 and 20). Both students and parents were asked when in time the "decision to go to college became clear to you." For both males and females, and for the responses of both parents and students, persisters and academic dismissals scored "early" and voluntary withdrawals scored "late" on the item. Transfers were relatively early on the item in some analyses and moderate in others. Differences were significant only for females.

TABLE 19

COMPARISON OF SCORES ON ITEMS FROM THE PARENTS' QUESTIONNAIRE FOR PERSISTERS AND THREE CATEGORIES OF DROPS: MALES

VARIABLE	GROUP				F ratio	PER CENT VARIANCE
	Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
1. Level of academic work expected of child	2.58	2.48	2.40	2.08	.98	.27
2. Perceived commitment of child to higher education	2.76	2.71	2.40	2.42	1.95	.54
3. Importance attached by parents to college work for child's future	2.99	3.00	2.90	2.92	5.08**	1.40
4. Perceived importance of the academic opportunity to child	3.74	3.71	3.70	3.53	.09	.03
5. Parents' ranking of import of academic opportunity for child	3.81	3.84	3.80	3.79	.10	.03
6. Highest level of education expected of child	4.59	4.61	4.45	4.34	.51	.14
7. Plans for continuance in present college (vs. plans to transfer)	3.32	3.23	2.65	3.47	4.17**	1.15
8. Earliness of decision that child would attend college	4.45	4.29	4.05	4.45	1.23	.34
Reasons for Going to College						
9. Serious intellectual curiosities which only college could satisfy	2.75	2.73	2.50	2.58	.39	.11
10. Compelling interest in one particular field	2.42	2.45	2.75	2.47	.55	.15
11. Find out more about certain fields	2.87	2.79	2.80	2.66	.15	.04

TABLE 19 (cont)

VARIABLE	GROUP				F-ratio	PER CENT VARIANCE
	Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
12. Enjoy studying	2.62	2.57	2.70	2.18	.08	.02
13. Degree necessary for desired kind of work	3.64	3.59	3.70	3.58	.13	.04
14. Preparation for better paying job	3.15	3.27	3.55	3.11	1.38	.38
15. Explore several lines of work to test interest	2.73	2.77	2.40	2.37	.57	.16
16. Live an easier life	2.12	2.21	2.75	2.16	2.26	.63
17. College contacts advantageous in finding a position	1.79	1.84	2.30	1.66	2.38	.66
18. Make new friends	2.34	2.48	2.40	2.24	.50	.14
19. Respected persons in community had gone	1.63	1.70	1.85	1.47	.50	.14
20. Learn to get along with other people	2.43	2.89	2.10	2.26	4.08**	1.13
21. Most friends were going	1.54	1.55	1.70	1.61	.26	.07
22. Help develop socially	2.20	2.38	2.00	1.79	1.09	.30
23. Close fellowship of dormitory or Greek house	2.04	2.07	1.70	1.92	1.00	.28
24. Help to become more influential in community affairs	2.15	2.34	2.20	1.95	.74	.21
25. Meet marriage partner	1.64	1.71	1.70	1.50	.19	.05
26. Help become a better spouse	1.92	2.07	2.20	1.76	1.02	.28
27. Not much to do around home	1.10	1.14	1.35	1.08	2.32	.64

TABLE 19 (cont)

VARIABLE	GROUP				*F*-ratio	PER CENT VARIANCE
	Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
28. Community leaders encouraged	1.99	1.80	2.30	2.08	1.22	.34
29. Acquire qualifications for civic leadership	2.30	2.38	2.35	2.24	.13	.04
30. Was always expected	3.03	2.84	3.35	3.11	1.14	.32
31. Parents insisted	2.38	2.20	2.90	2.50	1.66	.46
32. Young people in family have always gone	1.81	1.80	1.65	1.87	.14	.04
N	501	56	20	38		

$^{*}p < .05$
$^{**}p < .01$

TABLE 20

COMPARISON OF SCORES ON ITEMS FROM THE PARENTS' QUESTIONNAIRE FOR PERSISTERS AND THREE CATEGORIES OF DROPS: FEMALES

VARIABLE	GROUP				F-ratio	PER CENT VARIANCE
	Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
1. Level of academic work expected of child	2.70	2.71	2.70	2.19	.02	.00
2. Perceived commitment of child to higher education	2.76	2.71	2.33	2.48	9.95**	2.26
3. Importance attached by parents to college work for child's future	2.91	2.86	2.70	2.86	5.34**	1.23
4. Perceived importance of the academic opportunity to child	3.67	3.68	3.50	3.48	1.11	.26
5. Parents' ranking of import of academic opportunity for child	3.66	3.67	3.67	3.67	.57	.00
6. Highest level of education expected of child	4.24	4.29	4.10	4.10	1.08	.25
7. Plans for continuance in present college (vs. plans to transfer)	3.57	2.91	3.17	3.38	15.37**	3.45
8. Earliness of decision that child would attend college	4.38	4.11	3.63	4.38	5.48**	1.26
Reasons for Going to College						
9. Serious intellectual curiosities which only college could satisfy	2.85	2.85	2.87	2.33	.00	.00
10. Compelling interest in one particular field	2.60	2.47	3.00	2.81	1.58	.37
11. Find out more about certain fields	2.79	2.65	3.03	2.67	1.11	.26

TABLE 20 (cont)

VARIABLE	GROUP				F-ratio	PER CENT VARIANCE
	Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
12. Enjoy studying	2.98	3.00	3.13	2.38	.25	.06
13. Degree necessary for desired kind of work	3.42	3.38	3.53	3.10	.19	.04
14. Preparation for better paying job	2.87	2.88	2.90	2.71	.01	.00
15. Explore several lines of work to test interest	2.58	2.47	2.50	2.33	.25	.06
16. Live an easier life	2.19	2.24	2.27	2.33	.08	.02
17. College contacts advantageous in finding a position	1.92	1.89	1.83	1.86	.09	.02
18. Make new friends	2.66	2.52	2.40	2.71	1.40	.32
19. Respected persons in community had gone	1.65	1.39	1.20	1.67	4.27**	.98
20. Learn to get along with other people	2.61	2.38	2.67	2.52	1.06	.25
21. Most friends were going	1.60	1.62	1.33	1.71	1.14	.26
22. Help develop socially	2.37	2.36	2.33	2.38	.01	.00
23. Close fellowship of dormitory or Greek house	2.35	2.35	1.93	2.38	1.76	.41
24. Help to become more influential in community affairs	2.16	2.09	1.90	2.19	.78	.18
25. Meet marriage partner	2.06	1.97	1.67	1.86	1.96	.45
26. Help become a better spouse	2.65	2.77	2.53	2.95	.45	.11
27. Not much to do around home	1.16	1.20	1.13	1.14	.12	.03

TABLE 20 (cont)

VARIABLE	GROUP				F-ratio	PER CENT VARIANCE
	Persisters	Transfers/ Returnees	Voluntary Drops	Academic Drops		
28. Community leaders encouraged	1.83	1.92	2.10	1.57	.91	.21
29. Acquire qualifications for civic leadership	2.16	2.03	2.00	2.14	.72	.17
30. Was always expected	3.01	2.88	2.43	2.90	3.02*	.70
31. Parents insisted	2.11	2.06	2.10	2.24	.03	.01
32. Young people in family have always gone	1.78	1.62	1.37	1.67	1.91	.44
N	599	66	30	21		

$^{*}p < .05$
$^{**}p < .01$

Three final items of information indirectly may reflect differences in commitment to higher education. These involve (a) the highest level of education to which the student aspires, (b) plans the student has to complete his full four years in the original institution (as opposed to plans to transfer), and (c) the rate of persistence for students whose parents did not supply the information requested for the present study.

Persisters and transfers generally reported plans for more years of formal higher education than did voluntary withdrawals and academic dismissals--although no category of respondents admitted to plans for less than "a full four-year degree program" on this item, and differences among the categories were not statistically significant. (Tables 16 and 17).

Further, persisters and academic dismissals reported more often that they planned to continue for four years in the same college, while transfers and "real" voluntary withdrawals tended to admit plans to transfer. All four analyses involving this item (i.e., for males, females, students, and parents) yielded statistically significant differences among the categories. This should not be surprising: those students who came to college with an idea that they might transfer after a year or two, in fact did transfer more often. It is interesting, however, that the voluntary withdrawals who did not transfer also were low on this item. This suggests that persons who come to college with the intention of transferring before completing a full four-year program are about as likely to withdraw from college completely as they are to transfer--perhaps because they are not willing to make the substantial commitment of time and work which a degree requires.

Most analyses reported in the section are based on data from 1407 students who were freshmen in the three colleges in 1964-65. It will be noted, however, that analyses of parent questionnaires are based on only 1331 cases. Some 76 parents, despite three requests to do so, did not return the questionnaires. Such non-cooperation may readily be interpreted as evidence of a low level of commitment to the idea of higher education on the part of the parents; it would seem likely that parents who felt strongly about the importance of college education would be eager to cooperate in research involving the college experience of their children. The frequency of withdrawal of students whose parents did not cooperate was tabulated and compared to that of students whose parents did return the questionnaire. Results are summarized in Table 21.

The rate of withdrawal for students whose parents returned the questionnaire was 17.4 per cent; the rate for those whose parents did not was 40.8 per cent. Thus, students whose parents did not return the questionnaire were about two and one-third times more likely to withdraw than were students whose parents did return the questionnaire. Further, the rate of withdrawal was most discrepant for voluntary withdrawals (students from non-cooperating homes were more than four times as likely to voluntarily withdraw than were students from cooperating homes).

TABLE 21

PERSISTENCE OF STUDENTS FROM COOPERATING AND NON-COOPERATING HOMES

Student Status[a]

	Persisters		Transfers		Voluntary Withdrawals		Academic Dismissals		All Withdrawals	
	f	%	f	%	f	%	f	%	f	%
Cooperating Homes	1100	83	122	9	50	4	59	4	231	17
Non-Cooperating Homes	45	59	12	16	12	16	7	9	31	41
Total (f)	1145		134		62		66		262	

[a] Difference in rate for persisters and the three withdrawal categories significant at .001 level. Chi square=35.9; df=3

As would be expected, the rate is least discrepant for transfers--who have been characterized as relatively more committed to higher education than the other categories of withdrawals. These data provide compelling evidence that the attitudes and values which prevail in the home are important determiners of student persistence.

Scores on the Scholastic Aptitude Test, verbal and quantitative scales, were related to persistence significantly in three of four analyses performed, but the per cent variance accounted for by these relationships was about the same as that associated with the relationships involving measures of commitment. High school rank, the only measure of previous academic achievement available for all freshmen and typically one of the best predictors of college grades, performed at about the same level as did the SAT scores. Results for the SAT and high school rank were consistent for males and females, and as would be expected, gave results as follows: persisters averaged highest; transfers were next; voluntary withdrawals were third; and academic dismissals were lowest. It is interesting that for the commitment measures, voluntary withdrawals usually were lowest, and the scores of academic dismissals often were similar to those of persisters.

It is possible that relatively stable personality measures could be identified which would be concomitants of this "commitment." McClelland's "Need Achievement" (7) might be a possibility. Another, which was included in the present study, is the "Achiever Personality" scale included in the OAIS of B. G. Fricke (3). Fricke described "Ach P" as follows:

> "This scale measures personality attributes associated with the traditional criterion of academic success, grades. Students who score high on the Achiever Personality scale tend to realize their potential ability and/or achieve high grade-point averages. It predicts college grades about as well as the typical academic ability test. Furthermore, and this is important, scores from the Achiever Personality test do not correlate with scores from the ability tests. In short, the Achiever Personality scale is a good indicator of academic motivation and conscientiousness." (p.3).

Achiever Personality, however, does not relate significantly to persistence in this study, even though persisters and transfers tend to be high, and academic dismissals tend to be low on the scale. This suggests that, to the extent that the scale measures academic "Motivation," it is of a different genre than that tapped by the questionnaire items on "commitment."

Three other items in the OAIS do relate significantly to persistence. Persisters tend to be high and voluntary withdrawals low on "Social Adjustment" for both males and females, and persisters are lower than the other three categories on "Creative Personality" for both sexes. Finally, voluntary withdrawals and academic dismissals are high on "Infrequent Response" for both sexes (significant only for females). Fricke notes that high "Infrequent Response" scores often are obtained by a student "filling in his answer sheet carelessly or at random" (3, p.7). This may be yet another indirect indication of the role of commitment in persistence: the student who obtains a high "Infrequent Response" score because of careless or flippant treatment of his orientation tests the first week he is in college would not seem to be taking his college experience as seriously as would be expected of a genuinely committed student. This interpretation, of course, is speculative and does not derive directly from the data at hand.

Of the other significant results in Tables 14 through 21 which have not yet been mentioned, two findings deserve brief attention here.

1. Students who do not have a declared major at the beginning of their college careers tend to be less likely to persist than do students who do. Table 18 presents the frequencies with which students in each of 10 academic majors persist, transfer, voluntarily withdraw, or are academically dismissed. Also shown in the table are the statistically expected frequencies for each cell, and the difference between the actual and the expected. Where the difference is negative, fewer students were in that particular cell than would be expected; where the difference is positive, more people were there than would be expected. The only cell in which there is a substantial deviation from the expected frequency is the one for persisters who declare no major. For both males and females, fewer "no major" students persisted than would have been expected. The distribution of frequencies in the cells is significantly different from chance only for females.

2. Students with strained relationships with their families tend not to persist. Students who reported that they consider their relationship with their parents to be poor withdrew voluntarily or were dismissed on academic grounds more often than were other students; and students who lived with persons other than both parents withdrew voluntarily more often than did other students. (Tables 16 and 17).

Discriminant Analyses: Predicting Student Status. Statistically significant differences on many variables of this study were found among the four categories of students, persisters, transfers, voluntary withdrawals, and academic dismissals.

It is very difficult to arrive at a parsimonious description of the differences among the four groups in terms of so many variables--all of which are known to differentiate significantly among the groups.

One of the functions of multiple discriminant analysis is to compress a large set of variable such as this into a very few dimensions (or "discriminant functions") which provide maximum differentiation among the groups using all the variables simultaneously. In multiple discriminant analysis each specific variable is assigned a weight on each of the derived dimensions. These weights are so computed that when they are applied to the average scores of each group, "dimension scores" (or "discriminant scores") are obtained which indicate the locations of each group in the geometric space defined by the discriminant functions.

Thus, by using discriminant analysis, it is possible to describe the differentiation achieved by perhaps two dozen specific variables in terms of as few as two "summary" dimensions (or discriminant functions). Each *a priori* group (the four student categories in the present case) could then be located in the two-dimensional space defined by these two functions, as described above, and their relative positions examined. The closer any two groups were in this space, the more alike the individuals typifying the group would be. Further, assuming that the differences among the groups were statistically reliable, each individual in the sample could be located in the space, as well, and his proximity to the locations of each of the four groups could be determined. In this manner it would be possible to predict, on the basis of *a priori* information alone, which of the groups an individual was "most like"--and thus of which group he was most likely to be a member.

This strategy in the present application potentially can help identify the "attrition-prone" student. The student whose pre-college data locates him near the "academic dismissals" group in the discriminant space might be considered a "poor risk" academically, whereas the student whose location was near that of the "persisters" group would be considered "safe." Since the proximities of the individuals to the *a priori* groups are describable in numerical terms, it would be a fairly simple matter to determine, e.g., the 10 per cent of an incoming freshman class who are the poorest "academic risks," the 10 per cent who are the poorest "voluntary withdrawal risks," and the 10 per cent who are the poorest "transfer risks."

A brief summary of the statistical terminology to be used in forthcoming sections is presented and a multiple discriminant analysis of the present data will be described. The specific variables which characterize the discriminant functions obtained will be identified and the location of the four student categories in the discriminant space (that is, *vis a vis* the discriminant functions obtained) will be presented and discussed. Finally, procedures for arriving at specific predictions for specific students using these results will be summarized.

The Terminology of Multiple Discriminant Analysis: Multiple discriminant analysis is, in a phrase, a statistical tool which determines how a set of variable should be weighted to discriminate maximally among a set of *a priori* groups. A discriminant function, then is the set of weights (analogous to Beta weights in multiple regression) which is applied to the variables to achieve this maximum discrimination.[4]

Two kinds of discriminant functions (or "vectors") will be dealt with in this memorandum: normalized vectors and conventionalized scaled vectors. Normalized vectors are in a sense "standardized" in that they do not reflect differences in the variation of the variable used; thus, normalized vectors would be applied to raw scores to achieve maximum discrimination. Scaled vectors are in effect weighted by the variance of the variables; they would be applied to standard scores. The weight of each variable on a scaled vector, then, is an indication of the relative contribution of that variable to discrimination along the axis. Conventionalized scaled vectors are obtained by simply dividing each scaled vector by the absolute value of its largest element. This operation insures that each vector is on a +1 to -1 scale, which makes the vectors considerably easier to interpret.[5]

Discriminant Functions. All data from pre-college sources--including the parent questionnaire, Biographical Data Sheet, OAIS and SAT tests and high school rank--were considered for inclusion in the present analysis. In all, some 92 variables were available for analysis; data handling and considerations involving interpretation required that this number be reduced by about one-third before the discriminant analysis was performed. Therefore, only those variables which accounted for at least one-half of one per cent of the variance among the four groups in the analysis of variance (reported earlier) were included. This was a lenient criterion for inclusion; if a variable accounts for less than 0.5 per cent of the variance among the groups, it cannot contribute substantially to overall discrimination among them.[6] Thirty-one variables met this criterion. In addition, three variables which did not meet the criterion were included in the initial analysis, because of their centrality to some of the hypotheses of the study and/or because of their widespread use in college selection and guidance situations. These were: SAT-V, OAIS #4 (Achiever Personality), and OAIS #5 (Intellectual Quality).

---

[4] Techniques are available for testing the statistical reliability of both the individual discriminant vectors and the overall discrimination among the groups. These tests are described in detail by Cooley and Lohnes (1) and Rao (11); they will not be discussed here, although indications of statistical significance determined by these methods will be made when appropriate.

[5] Note that conventionalized scaled vectors can be interpreted legitimately only on an intra-dimensional basis and not on an inter-dimensional basis. For example, a variable which had a conventionalized weight of .80 on one vector and .40 on another would not be interpreted as being "twice as important" on the first vector.

[6] This, of course, ignores any possible "suppressor" effects, but examination of the correlations among the variables indicated that if present, the "suppressor effect" likely would be inconsequential.

Results of the discriminant analysis reflected the lenient criterion by which variables were selected for inclusion: although two statistically significant axes of discrimination were obtained, fully half of the variables used yielded no conventionalized weight greater than .25 on either side.

Therefore, the discriminant analysis was recomputed, this time using only the 17 variables which were weighted at least .25 on one of the conventionalized axes in the initial analysis. The results of the second analysis replicated those of the first almost exactly, and at the same time were more compact; thus, only the results from the second analysis are reported.

Differentiation of the Four Student Categories. The two statistically significant discriminant vectors which were obtained are presented, in both normalized and conventionalized form, in Table 22.

The first vector, which accounted for 64 per cent of the total discrimination, is characterized by high positive conventionalized weights on several variables reflective of "commitment" to higher education. The five variables loading highest on the vector are, in order of decreasing magnitude: (a) perceived commitment to higher education; (b) OAIS #6 (Creative Personality), negatively; (c) plans for continuance in the present college; (d) earliness of the decision to attend college; and (e) one "Reason for Going to College"--"explore several lines of work."

The second vector accounted for 30 per cent of the total discrimination, and is characterized by only two variables: high school rank (positively), and plans for continuance in the present college (negatively).

The patterns of weights on the two vectors are highly provocative, for three reasons:

1. The first--and largest--vector is rather clearly reflective of "commitment," indicating that this concept in its several manifestations accounts for a large proportion of the discrimination among the four categories of students.

2. The "aptitude" items (SAT-V, SAT-Q, and OAIS #5) did not contribute to the discrimination among the four groups--on either axis--as might have been expected. Indeed, the contribution of OAIS #5 was so negligible that it did not meet the criterion for inclusion in the analysis summarized in Table 22.

3. Axis II appears to be "unnameable." As is often the case in multivariate research, two variable which are unrelated to each other (they correlate .01) together serve to characterize a derived vector. Examination of the centroids of the four groups in the two-dimensional space defined by the two axes probably will convey the "meaning" of this second axis better than a verbal rationalization.

These centroids are presented in Table 23 and are shown graphically in Figure 1.

TABLE 22

Multiple Discriminant Analysis of Selected Variables for the Four Student "Categories"[a]

	Discriminant Vectors			
	Axis I		Axis II	
Variable	Normalized	Conventionalized[b]	Normalized	Conventionalized[b]
1. OAIS #2 (Infrequent response)	-.005	-.14	.024	.22
2. OAIS #6 (Creative personality)	-.022	-.69	.023	.22
3. OAIS #7 (Social Adjustment)	.010	.29	.004	.04
4. SAT-V	.002	.45	.001	.09
5. SAT-Q	.001	.39	-.001	-.10
6. High School Rank	.058	.35	.535	1.00
From Parents' Questionnaire				
7. Perceived Commitment of child to higher education	.707	1.00	.072	.03
8. Importance attached to college work for child's future	.528	.40	-.625	-.15
9. Plans for continuance in present college (vs. plans to transfer)	.232	.62	-.416	-.34
10. Earliness of decision that child would attend college	.163	.56	-.177	-.19
11. Live an easier life	-.092	-.31	.084	.09
12. Respected persons in community had gone	.187	.51	.028	.02
From Biographical Data Sheet				
13. Infrequent church attendance	-.125	-.31	.056	.04
14. Plans for continuance in present college (vs. plans to transfer)	.126	.32	-.301	-.25
15. Explore several lines of work to test interest	.156	.54	.051	.05
16. Meet marriage partner	.162	.49	.090	.08
17. Community leaders encouraged	-.109	-.35	-.013	-.01
	.1552*		.0710*	
Per cent of trace	64		30	

---

[a] Data combined for males and females because of small sample sizes for some categories.

[b] A scaled vector is "conventionalized" by dividing each of its elements by the magnitude of its largest (absolute value) element.

*$\underline{p} < .001$

Table 23

Vector Rank Orders

Student Categories	Discriminant Axes	
	I	II
Persisters	7.34	2.09
Transfers	6.94	2.53
Voluntary withdrawals	6.20	2.74
Academic dismissals	6.59	0.80

The first vector rank orders the four groups as follows: persisters, transfers, academic dismissals, voluntary withdrawals. This clearly is consistent with the "commitment" interpretation: persisters and transfers should be higher on commitment than the other two groups, and academic dismissals should be higher than those who withdrew voluntarily and did not re-enter college. One presumes that the academic dismissals would have persisted, if the college had but given the opportunity to do so; the voluntary withdrawals did have the opportunity, but chose not to persist nonetheless.

On the second vector, voluntary withdrawals and transfers are high, academic dismissals are quite low, and persisters are near the reference line. This is the arrangement which would be expected on this axis, given the weights of high school rank (positive) and of plans for continuance in the present college (negative). That is, a high high school rank tends to move a score "up" (i.e., in a positive direction) on the axis, and a high continuance score tends to move a score "down."

To get a very high score on Axis II, then, a student would have to have a moderately high high school rank and moderately low score on continuance in the same college. And this configuration characterizes the two high-scoring groups on this axis (voluntary withdrawals and transfers): they have performed reasonably well in high school, but they do not intend to stay four years at the original college -- and in fact they do not.

To get a very low score on Axis II, a student would have to have a moderately low high school rank and a moderately high "continuance" score--and this, of course, is quite characteristic of the academic dismissal group.

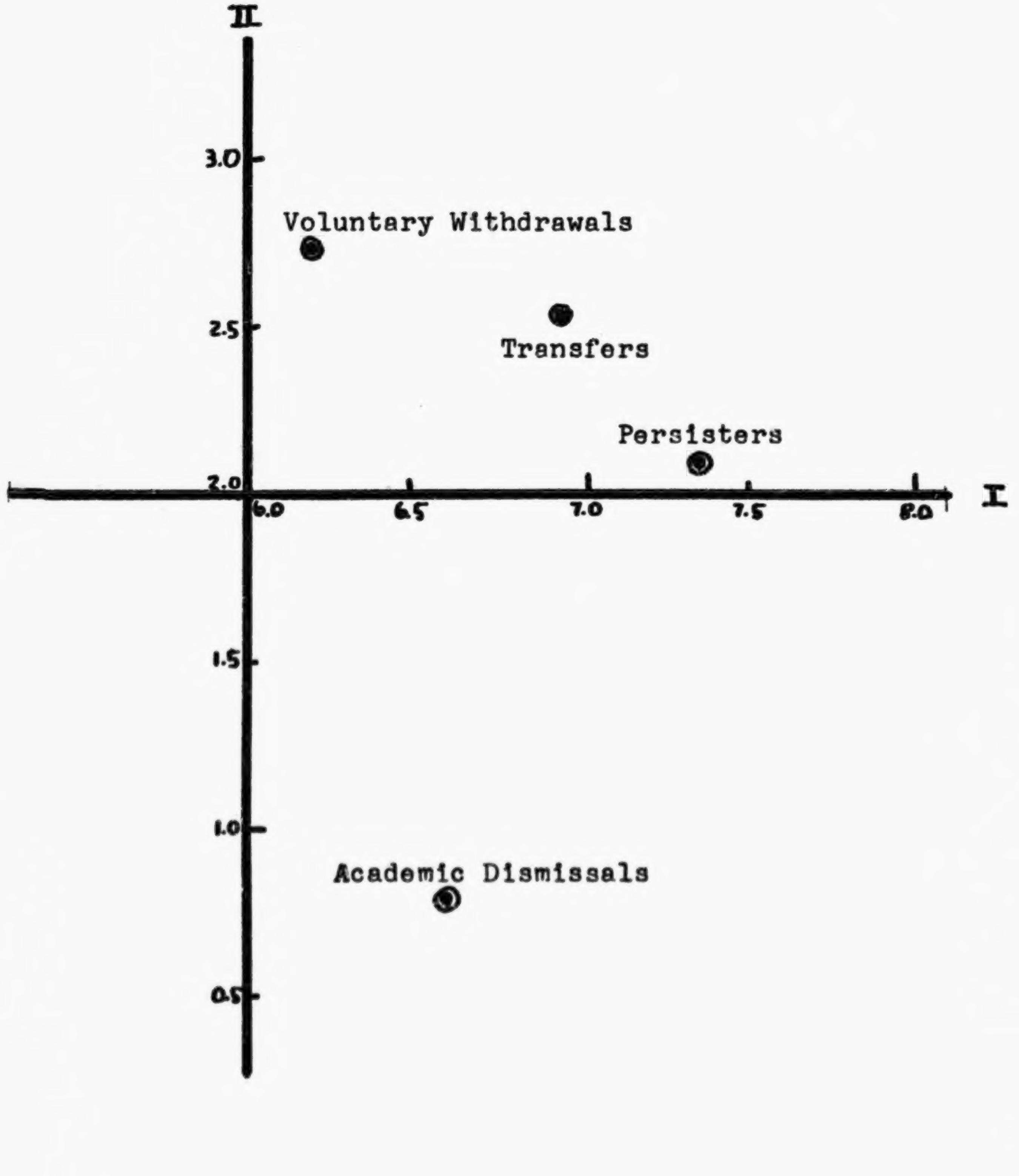
But what about the persisters? Why do they have a score near the reference line on Axis II? The answer is that persisters have both high high school ranks (which tend to move them "up"), and high continuance scores (which tend to move them "down"). The scores "cancel" each other, and, as a group, the persisters fall near the reference line on this axis.[7]

---

[7] A score near the reference line could be obtained in another way: by having both a low high school rank and a low continuance score. But it is very unlikely that a student with these characteristics would ever get to college in the first place--and if he did, his score on the "commitment" axis would probably be far to the left of the four groups plotted in Figure 1.

Figure 1

Group Centroids in the Two-Dimensional Discriminant Space



What kind of student, then, is a good "bet" for persistence? The data are very clear. In terms of the two discriminant axes, he should be very high on Axis I and near the reference line on Axis II. In more substantive terms, he should have a high commitment (as measured by the instruments used in this research), should have performed well in high school, and should have plans to complete his four years of college education at the institution in which he originally enrolled.

Classification Attempt: The Attrition-Prone. Given that the four groups of students can be differentiated reliably in terms of the discriminant vectors (as was shown above), it is possible to arrive at a numerical score which indicates the likelihood that each individual is associated with each of the centroids.

To accomplish this, each individual is assigned a "location" in the two-dimensional discriminant space on the basis of his scores on the variables used in the analysis. Then, considering both his "location" and the dispersion of the locations of other group members around each of the centroids, a probability score is generated for the individual with respect to each of the centroids. For example, an individual whose location was near the "persisters" centroid in Figure 1 might have probabilities of .82,.10, .04, and .04 respectively for membership in the persister, transfer, voluntary withdrawal, and academic dismissal groups. Explicit procedures for arriving at these probabilities are presented by Cooley and Lohnes (1, pp. 134-135).

Given a set of probabilities for each individual in a freshman class, then, it should be possible to identify those individuals who are most likely to be members of each of the withdrawal categories and use these results for purposes of selection or counseling.

The most straightforward way of interpreting such probabilities would be to classify each individual as an instance of the group for which he has the highest probability value. Unfortunately, there is one difficulty with this strategy: the size of each "group" is one of the factors which influences the magnitude of the probabilities obtained. When all groups are of roughly equal size, this factor is of no concern. When one group is very large, however, the probabilities for that group will, on the whole, appear quite high. Similarly, if one group is very small, its probabilities will be quite low. This is simply a manifestation of the well-discussed "base rate" problem: if one knows beforehand that, e.g., 85 per cent of his cases are persisters, he can be correct 85 per cent of the time by classifying everyone as a persister. Since the "base rates" are taken into account in the computation of the probabilities, straightforward use of the obtained probability values for classification would tend to over-classify individuals into the larger group(s) and under-classify individuals into the smaller group(s). In the present case, too many students would be classified as persisters and too few students would be classified as attrition-prone.

Unfortunately, this is exactly the wrong kind of error to be making for guidance and counseling applications: if anything, one should be willing to identify some students who are "really" persisters as "attrition-prone" in order to be sure that as many of the "really" attrition-prone students are identified as possible.

Therefore, in the classification attempts to be reported below, two times the number of students who actually withdrew were identified as "attrition-prone" to increase the number of "real" withdrawals identified. Thus, although only 59 students were dismissed from the three colleges on academic grounds in 1964-65, 118 students were identified as "potential" academic dismissals. This identification was accomplished simply by counting off the 118 highest probabilities for the "academic dismissal" category and identifying the 118 students for whom these probabilities were obtained, regardless of the probabilities of these students for the other three categories. Identical procedures were followed for other categories of withdrawals.

Using these procedures, identification was made of 39 of 122 transfers, 25 of 50 voluntary withdrawals, and 21 of 59 academic dismissals. In percentages: 32 per cent of the transfers, 50 per cent of the voluntary withdrawals, and 36 per cent of the academic dismissals were correctly identified. Or, considering all categories together, 85 of the 231 students who withdrew before the start of their second year of college were identified.

A much more powerful procedure would be to identify those students who have low probabilities of persistence, ignoring the differences among the three categories of withdrawal. Using this procedure, those students who are "attrition-prone" would be identified, but there would not be good indication as to the kind of withdrawal that they were most likely to be. Since there were 231 withdrawals in the sample, the 462 students with the lowest probabilities of persistence were selected, consistent with the classification strategy outlined above. It was found that 138 of the 231 non-persisters were included in this selection. Thus, by identifying as attrition-prone twice as many students as were expected to withdraw, fully 60 per cent of the students who actually did withdraw were identified. Further, since data on withdrawals were available for these students only for the freshman year, it seems likely that many of those students who were identified as "attrition-prone" and who did not withdraw the first year might have done so as upperclassmen.

In another sense, however, the number of "correct" identifications would be artifactually high for the present sample. This is because the individuals who were "classified" are the same ones who were used to determine the weights for maximum discrimination, and to locate the centroids in the discriminant space. A better test of the adequacy of the discrimination obtained--and of its potency for classification purposes--would be to take the presently derived weights and apply them to scores obtained by a new freshman class on the 17 variables. Predictions of persistence and withdrawal could then be made for these individuals, and the frequency of correct decisions could be tabulated. To the extent that these classifications were correct, the results of the present analyses could be generalized with confidence beyond the particular sample of students used in them.

Summary. It has been shown in this section that:

1. It is possible to reliably differentiate among the four categories of students in terms of a subset of the study variables.

2. This differentation can be accomplished by two axes of discrimination.

3. The two discriminant axes are meaningful. Further, the locations of the centroids (or "multivariate means") of the four groups in the two-dimensional space identify the characteristics and attitudes of the students which typify each group. Persisters tend to be high on "commitment," have high high school ranks, and plan to continue in the college of initial enrollment for four or more years. Transfers are relatively high on commitment, have high high school ranks, but are low on plans for continuance. Voluntary withdrawals are similar to transfers, except that they have very low commitment scores. Academic dismissals are relatively low on commitment, low in high school rank, and high on plans for continuance.

4. On the basis of the results obtained, it is possible to arrive at probabilities indicating the likelihood that any given student is associated with each of the four groups, and, using these probabilities, identify many of those students who are "attrition-prone." By selecting twice as many students as were expected to withdraw before their second year in college, 60 per cent of the students who in fact did withdraw were identified.

Special Studies

College and University Environment Scales

One of the approaches to the study of attrition from colleges involves the college climate. High levels of attrition are expected in a college environment which students find unfavorable and lower levels of attrition in an environment which students find favorable. The Tri-College Study included an examination of college climate as a part of its effort to understand.

Instruments have been developed for the measurement of factors which seem to constitute college climate. The College and University Environment Scales (CUES) was adopted for the Tri-College Study. The categories of CUES are based upon factor analysis and include Practicality, Community, Awareness, Propriety, and Scholarship.

The patterns of the three colleges in the Tri-College Study are similar to each other. Each has a very high percentile score in Community; the scores on Propriety tend to be fairly high; the scores on Practicality are high; and those on Awareness are fairly high. The scores of the three colleges on Scholarship range from the 67th to the 81st percentile

Table 24

CUES

	I Practicality	II Community	III Awareness	IV Propriety	V Scholarship
College A %ile	85	94	54	90	70
College B %ile	79	94	78	78	67
College C %ile	88	97	81	95	81

Any effort to understand attrition at the three colleges by an examination of the median results from CUES does not seem to be very informative. Students find these institutions very congenial societies, including relationships with faculty as well as with other students. The sense of practicality and campus order is high in percentile rank, and the feeling of awareness of modern problems and self identity is fairly high. The sense of propriety, considerateness, and conventionality is rather high, especially in two of the schools. The sense of scholarship is substantially above the median, although it does not reach the very high percentile ranks.

It would appear that an examination of these results offers no obvious explanation of the withdrawal of students from the three colleges. There seems to be no point in these records which identified areas of serious dissatisfaction among the students of these colleges.

A possible approach to the analysis of these results is in terms of their scatter. The medians represent the central tendencies, but it is also informing to examine results from those who perceive the environmental situation differently. Since the instrument was administered to sophomore and junior students without signatures, no opportunity is given to identify the scores of any student who later withdrew. One can only say that a few students gave returns which rank low on the percentile scales. It is possible that students who withdrew shared these perceptions of the college climate, but no data to refute or sustain such a thesis is identifiable in these records. It is also possible that some dropouts may have appraised the colleges as reflected in Table 24, but disliked a college climate of practicality, community, and propriety. Our evidence permits only speculation on this matter.

An additional possibility involves item analysis and the specification of the "votes" on each item. Some items showed scores which faculty would doubtless find unfavorable. Such records are useful in considering specific topics, but they do not seem to be clearly instructive about attrition.

Disciplinary Dismissals

In general, students dropped from these colleges for disciplinary reasons were able youth. The average of available scores for SAT Verbal is 550 and for SAT Mathematics is 568. The high school rank is between the 60th and 70th percentile in their respective classes. The college grades were almost exactly a "C" average, both for the cumulative averages and for the grades of the last semester in college. Both high school and college grades seem to be somewhat lower than the College Board tests would lead one to expect.

Reports were received by questionnaire from 22 disciplinary dismissals. Twelve of these reports were sent by students; three were returned by parents; in seven cases, questionnaires were received from both student and parent. The following is a summary of these reports.

The description of the disciplinary incidents as taken from the students' reports included the following list: theft, on-campus drinking, a motel incident, a panty raid, plagiarism, an unlisted off-campus apartment furnished with stolen school property, a stolen car, vandalism, and the unauthorized absence of women from the dormitory. In a number of these reports the students acknowledged previous offenses, either of similar nature or of a different kind.

Most of these reports are quite frank, objectively describing the incidents and in some cases previous incidents. Others appear to be defensive, e.g., explaining that the college had no specific rule against this particular offense, or insisting that it was the intention to return stolen furniture later.

The typical number of students involved in these incidents was two or three. Most students stated that they had not been previously involved in serious discipline. In most cases, they reported that the conduct was largely spontaneous, although about 40 per cent acknowledged some planning in advance. In almost all of the cases, they reported they were aware that the actions risked discipline according to defined standards. In the three cases where students denied this, they insisted that there was no rule which spelled out this particular behavior as a violation.

The students reported that they had been bored, without vivid educational or vocational goals. Along with their friends, they were seeking excitement.

At the time of the dismissal, these problems were discussed with the student, usually by an administrative officer, with representatives of student government or a faculty committee sometimes involved. Almost all students agreed that the college representative had had the essential facts. One parent denied this, but the son's questionnaire affirmed it. The student usually agreed that he had had at least limited opportunity to present his point of view.

A question was included concerning the counseling offered by the college in connection with the problem. Most of the students and the parents felt that this assistance had been offered. In some cases students denied it, and two parents felt that there should have been more communication with the home.

Questions were asked about the effects of this action, the relationships in the home and the community, and in opportunity for further education. In three cases, relationships to the homes were seriously affected, but in all other cases, the students reported that these relationships were not affected or were affected only temporarily. The typical response about community relationships was a median "somewhat." Several students reported that their relationships with peer groups at home were not affected, although the older community was less favorable.

The effects on future educational opportunities were reported about evenly in the three answers, serious, moderate, or no effects. Approximately one-fourth of the students who replied, answered that they were in college again at the time they returned the questionnaire. Another somewhat larger group reported that they expected college study in the near future. In a few cases, students had joined the military and expected to continue college after their term of duty.

The answers to the open-ended question are relatively few in number but worth examination. Some are critical of the institution. One student reports over-protective, almost prying attitudes on campus, with the "questioning mind" of students suppressed. Another found too many rules, leaving the student "little choice on how to live." Another invited more rules, insisting that college policies are not specific enough in defining disciplinary incidents. Another argued that the college should educate and let the law handle legal matters. Another remarked about the tension at examination time, with no outlet for the emotion. Another continued to be bitter over the severity of the penalty.

Some students spoke of the awakening, the valuable lesson which they had learned. One reported that, after enlistment in the Navy, he was watching other boys enjoy violations of rules; he thought they were fools like he had been. Another was awakened when both the law and the college took action. When fingerprinted, he felt like appealing, "please let me back into society."

The comments of parents included two who almost rejected the son. One reported that they had had other problems both before and after this incident, while another said that the young man must pay his own way in any future college work until he makes a responsible record. Several reported a new maturity. It "changed his outlook." One parent regretted the stigma on his son's record and the difficulty in opening college doors again, but felt it was a "waking up." In one case, the young man felt so unworthy that he was surprised not to be rejected at home. One parent found the college in part responsible in the lack of adequate conseling for students.

The number of cases of disciplinary drops from the colleges is not large enough for generalized conclusions. As one mother expressed her opinion, these are individual cases which elude the "pat answer."

It is a group with high potential and modest levels of achievement both in high school and in college. Their violations were the typical ones, often spontaneous, but indulged with full appreciation of the possible results. Boredom and the appeal of excitement with friends was reported.

These students felt that the process of discipline had been regular, and the allegations had had a sound basis in fact. They felt that they had had at least a limited opportunity to present their points of view and had had counselors who heard and advised them.

The effects at home, with two exceptions, were temporary, and the effects in the community were not very serious. The difficulties in future education were more serious for most of the group, but some were in college and others had definite plans for college when they returned the questionnaires.

While some expressed criticism of campus rules or attitudes, most reported that the discipline had matured them. Parents agreed that the youth had matured, in spite of some regret that future college work had been made more difficult to arrange.

In retrospect, some wonder whether colleges have found the most effective approach to the handling of disciplinary cases, though greater leniency could endanger the quality of the environment which the college is at great pains to create.

Discussion

Some factors related to the methodology of the study suggest qualifications in the interpretation of the results. These factors are presented and discussed in this chapter.

Differentiation Among the Withdrawal Categories

The study has classified withdrawals into three groups: the voluntary withdrawal, the academic dismissal, and the disciplinary dismissal. The voluntary withdrawals are further classified in two groups: those who transferred to another college or returned to the same college, and those who were "real" withdrawals, i.e., those who did not continue their education during the period of the study.

None of these categories can be regarded as well defined. Voluntary withdrawal divides, as suggested above, into two groups on the basis of action after withdrawal: continuance or discontinuance of formal education. Some who withdrew will doubtless transfer or return later. Some were in difficulty in the college and withdrew in order to avoid further complications or official action. Others withdrew with a new educational opportunity before them. These groups classify together so far as the original college is concerned, but the significance of their action varies widely. In a few cases, the Research Office has received returns from students classified as voluntary withdrawals who stated that the withdrawal was an academic dismissal. On the college record, the student was a voluntary withdrawal. He may have been warned about his status and possibly advised not to return. He interpreted the situation as an academic dismissal. Such confusion in the term voluntary withdrawal is a complication to the study.

The term persister contains similar ambiguities. Although students in this category persisted in college through the tenure of the study, a number of them will doubtless withdraw before graduation. It would require postponement of the study for two years in order to identify these students. The "persisters" category, therefore, includes only those students who were still in college at the time the records of the study were closed.

Finally, there may be some overlap between academic and disciplinary dismissals. It is not unusual to find a student with both of these problems. The official classification may take primary cognizance of either the academic or the disciplinary difficulty--but not both.

Given sufficient time and persistence on the part of the researchers, it should be possible to develop "clean" categories. Persisters would be those who ultimately graduated from their institution of original enrollment. Cases of voluntary withdrawals who were leaving because of impending academic or disciplinary action could be eliminated or classified in separate categories. Post-withdrawal action, whether transfer to another institution or discontinuance of education altogether, could be more rigorously identified.

Yet, it is unlikely that cleaner definitions of the student categories would change the direction of the results obtained in this research. The contrasts among the groups might well become larger, and the statistical reliability of the results greater by the elimination of the problems involved in the definition of the categories.

The Definition and Meaning of Commitment

Commitment, as the term is used in this study, is defined in terms of the answers to the questions submitted to students and to parents: questions regarding plans for graduation, transfer, the age of the student when the decision for college became clear, home evaluation of higher education, and global judgment of the home concerning the commitment of the student. These questions, then, can be construed as forming the operational definition of "commitment" used in the study. The study has not provided the opportunity to make a scientifically adequate investigation of the meaning of the construct. It is not known, for example, how the present operational definition of the term relates to other uses of "commitment" as a construct.

There are additional questions about the implications of a definition such as this. Is the commitment primarily to academic work, to vocational preparation, to social life, or to the total situation on campus? How important is loyalty to a particular college in commitment? What are the ranges and dimensions of individual differences in such areas?

These and similar questions are not adequately met by the operational definition of the present study and must await further research involving the construct.

Reasons for Withdrawal as Common Problems

One of the assumptions of the study proposes that the stated "reasons for withdrawal" given by a student should be received with considerable skepticism. The assumption holds that these "reasons" are in large part problems suffered by most students, which explain withdrawal only when student commitment (or lack of it) is taken into account.

It would be possible to test this assumption. The list of "reasons for withdrawal" could be submitted to persisting students--e.g., seniors. The title of the list could be "Typical Problems of College Students" or "Problems of My College Work." If the averages of persisting students were close to those of withdrawals, the assumption of the study would be supported.

If the assumption is correct, it implies that those sections of the results which describe the reactions of students to the withdrawal experience should be interpreted with caution. These reasons may, in fact, be only "surface" indicators of problems experienced by many college students, and not particularly characteristic of withdrawals as a group.

The Magnitude of Prediction Achieved

One of the major hypotheses of the study--that the commitment of the student and his parents would be a potent determiner of student persistence--was consistently supported by the data. The proportion of the variance accounted for by variables indicative of commitment generally was not large. It is interesting, however, that the commitment measures typically accounted for substantially more variance than did "biographical" data, and for as much or more variance than did measures more frequently used in admissions and guidance programs, such as SAT scores, high school rank, and OAIS scores.

These latter data from admissions records were, on the whole, disappointing as predictors of persistence. Neither of the SAT scores had substantial loadings of the discriminant vectors which differentiated among the groups of students. High school rank, while loading substantially on one of the discriminant vectors, accounted for less than one per cent of the variance among the groups in the analyses of variance--and was not even statistically reliable for males. It might be argued that one of the reasons for the poor predictive validity of the SAT scores is the fact that they were used for selection purposes at the colleges, thereby attenuating the variance of the student populations. The standard deviations of the SAT scores, however, averaged about 90 for the three colleges (compared to a norm of 100), indicating that if present at all, this effect was probably negligible.

The Importance of Parental Attitudes

The attitudes and values reported by parents generally were good predictors of persistence--better than those reported by the students themselves. The attitudes of the parents seem to be important factors in the student's educational experience. Data gathered from home interviews and from answers to open-ended questions tend to support this interpretation. A further--and especially compelling--bit of evidence on this point concerns the research questionnaire sent to parents during the first weeks of college. One of the most potent predictors of persistence or withdrawal was the return of this questionnaire. The attitudes of parents seem to make an important difference, both in what the student thinks about higher education, and in his academic behavior once he becomes involved in it.

The questionnaires, phone calls, and interviews used to contact parents of students who had withdrawn yielded another somewhat unexpected finding: a real feeling of closeness to the college on the part of the parents. The institution seems to be a part of the life of these homes. Family members know some faculty, many students, former students, and parents of students. Even dismissal of the student did not seem to destroy this relationship, although there were criticisms of actions taken and of some individuals. The homes feel close to these colleges.

This relationship suggests a possible definition of the type of college involved in the Tri-College Study: such a college might be seen as a community of homes over a broad geographic area, bound together by their loyalty to the educational program of the institution. This definition is not complete, but it focuses on an important phase of college relationships which are seldom recognized on campus.

Colleges might well consider this relationship as they deal with attrition. The experience of the present researchers indicates that it would be a rewarding experience for faculty and administrative officers to discuss the problems of some students in their homes; one learns more about student problems in the home than he does behind a desk.

Finally, it should be noted that many of these parents, especially among the freshmen, raise an issue related to contemporary discussions of college policy. Some contemporary educators and students advocate more freedom for students and less supervision by colleges, on the assumption that students are both highly mature and relatively independent of the home. Many parents do not concur with this view, especially after the student has withdrawn. They propose, on the other hand, more college supervision, especially for freshmen. They criticize the lack of communication with the home, especially when issues arise. Many feel that their influence could have been effective if used in time, and they remind that they are paying the bills for this "independent" youth. Parents clearly felt that they were strongly involved in the college education of their children--and often indicated that they felt that the colleges did not recognize the legitimacy of this involvement.

Generalizations From the Results

Any effort to use the results of this study for prediction of persistence or withdrawal must, of course, duplicate the conditions under which the study was carried out. Three phases seem particularly important.

First, as was mentioned above, the definition of commitment used in the study is operationally tied to particular items on the questionnaires used. Other means of tapping the "commitment" of a student or his parents should contribute to the construct validation of "commitment."

Second, the instruments were administered after the students were on campus; they were not applicants for admission at the time. It is questionable whether students and parents would be completely candid in their assessment of the student's commitment if he were being evaluated as a prospective student.

Finally, the results are based only on data obtained from students at three particular colleges. Data presented earlier in this report showed that these colleges and their students were similar to one another. The results of the study may not apply to other types of colleges or to student populations with different characteristics.

Conclusions

Stated Reasons for Withdrawal

Questionnaires returned by former students some months after withdrawal offered no clear pattern of reasons for voluntary withdrawal. A dozen reasons of disparate nature were offered; none of them averaged as high as 2.0 on a three point scale; they show a very narrow band of scatter about halfway between the point (1) termed "no significance" and the point (2) termed "less significant." While in individual cases decisive reasons such as finances or illness were reported, no patterns of stated reasons which point to a systematic understanding of the problem were found. Two general explanations of the dynamics of voluntary withdrawal are offered below.

First, cumulative factors may have been operative, as proposed by the theory of multiple causation, thus, a combination of problems, each non-decisive in itself, may have brought withdrawal. This proposed solution assumes that the cumulative factors were more weighty among withdrawals than among persisters who faced similar problems.

The theory of commitment offers an alternate explanation. Students do have problems in their college life, and those with relatively low levels of commitment may tend to accept them as reasons for withdrawal. Those with higher levels of commitment may tend to solve or tolerate these problems, often without serious thought of withdrawal.

The reason for withdrawal of the academic dismissals was the action of the college, and, as would be expected, the stated reasons for the failures as reported on the questionnaires centered in academic problems. Other issues which were mentioned frequently did not form any obvious pattern.

The stated reasons for withdrawal are strikingly different for end-of-semester as compared to middle-of-the-semester withdrawals. Illness of self or family, "having a baby," emotional problems, homesickness and loneliness suggest a pattern of personal problems reported by the mid-semester withdrawals which is not duplicated for the end-of-semester withdrawals in either semester. The mid-semester decisions were reported as more abrupt, with less consultation and a shorter period of consideration.

Commitment

Commitment, as used in this study, is defined mainly in terms of the responses of students and parents to questions administered through the instruments of the study. While the responses to these questions on the whole tended to be optimistic, the discriminations which were obtained were predictive of persistence.

In particular, each of the following commitment-relevant variables related significantly to persistence:

--parents' perceptions of the student's commitment to higher education

--the importance which parents themselves attached to a college education for their children

--the earliness of the decision that the student would attend college, and the feeling that "it had always been expected" that the student would go

--the highest level of education to which the student aspired

--plans by the student to complete his full four years at the institution of original enrollment

--parental cooperation with the research study, perhaps indicative of a sense of responsibility for and involvement in the student's college experience

Finally, two multiple discriminant vectors were obtained which discriminanted among the four student categories: persisters, transfers-returnees, "real" voluntary drops, and academic dismissals. The first and largest vector was characterized by commitment-relevant variables, demonstrating again the importance of commitment in understanding the differences among the student categories.

Identification of the Attrition-prone

As indicated above, it was possible to differentiate reliably among the four categories of students using multiple discriminant analysis on a subset of the study variables. Two meaningful axes of discrimination were obtained. The location of the four student categories with respect to these two axes indicated that: (a) persisters tend to be high on "commitment," have high high school rank and plan for continuance in college (as opposed to plans for transfer); (b) transfers have characteristics similar to those of persisters, but report plans to transfer; (c) voluntary withdrawals are characterized mainly by low commitment scores; and (d) academic dismissals are moderately low on commitment, low in high school rank, and high in plans for continuance.

Classification procedures made possible the identification of about 60 per cent of the attrition-prone students on the basis of pre- and early-college information.

Parent Attitudes

It was clear in many phases of the study that parents are deeply involved in the issues of persistence-withdrawal. Parents feel close to the college, and they respond in more ways than the payment of bills. The questionnaire to the parents of freshmen in 1964 was returned in 95 per cent of the cases. After withdrawal from the college, the parents of the former students returned questionnaires, gave answers to open-ended questions, responded to telephone calls and the request for interviews in very high percentage.

The statements of parents about commitment were predictive. While most parents were optimistic about the educational prospects of their youth, their discriminations were supported in the later persistence or withdrawal of the young people. Their perception of the students' commitment, especially the women, was the best single predictor among the original 94 variables of the study. Both the importance to the parents of the education of the youth and the earliness of the plans for college, were also predictive of persistence. Although most parents reported reasonable satisfaction with the withdrawal, the hope for future education of their youth was expressed with very few exceptions.

When students reported strained family relationships, there was a tendency for "real" voluntary withdrawal or academic dismissal. Parents who failed to return the questionnaire to freshman parents in the fall of 1964 represented only five per cent of the parents, but this failure to cooperate with the college in the early days of the student's work proved to be dramatically predictive of later withdrawal of the student.

The Effects of Withdrawal

The effects of withdrawal were reported in fairly positive terms. Many of the students reported plans to return to college. Parents were almost unanimous in this as a plan or at least a hope; some parents of women reported that further education would not be essential. The negative effects of withdrawal in the home and community were temporary with only a few exceptions. There were a number who found it difficult to find a new college opportunity.

Summary

Three colleges have joined in a study of attrition: Hanover College of Hanover, Indiana; MacMurray College of Jacksonville, Illinois; and Wittenberg University of Springfield, Ohio. Each is a liberal arts, church-affiliated institution of the Middle West. The student bodies, as judged by various measures, are similar in background and in level of ability. Two of the institutions have approximately 1,000 students in attendance, while the third, Wittenberg University, has approximately double that number.

The theory of the study is two-fold. Multiple causation is recognized both in the sense that different causes bring withdrawal to different students, and in the sense that cumulative factors are effective in many cases.

The second phase of the theory begins with some skepticism concerning the final instructiveness of the lists of reasons offered for withdrawal. It is observed that almost all of the problems listed as reasons for withdrawal are shared by students who persist. The central question asks about the circumstances under which these stated reasons seem to influence some students to withdraw while others who share the problems persist.

The hypothesis of the study proposes that a significant difference is in the level of the commitment of the student to higher education as the major opportunity of post-high-school years. Students with high levels of commitment face these problems and either solve or tolerate them, while those with low levels of commitment tend to find the same problems adequate reasons for withdrawal.

The theory further proposes first, that student commitment is related to the commitment of the home to higher education, and second, that investigation of these parental attitudes could be instructive.

The primary experimental groups were the freshman classes of the three colleges of 1963 and 1964. They were followed into the academic year 1965-66. Upperclassmen who withdrew were also included in phases of the study.

Data were gathered, first, from the pre-college record of the freshmen, the high school rank and the SAT scores. As a part of the freshman orientation program, certain instruments were administered for the study. A Biographical Data Sheet asked many questions about the student's background, and the second part of the instrument asked direct and indirect questions concerning the commitment of the student to higher education. These questions included the length of the planned period of college study, plans for transfer, and the time when the decision to go to college became clear. It was assumed that answers to these questions had relationship to commitment. Adaptations of Iffert's (4) reasons for going to college constituted the third part of this instrument.

The Opinion, Attitude and Interest Survey by Fricke (3) was adopted to measure characteristics not included in tests of academic aptitude. The 14 scales include three response bias scales, three academic scales, three psychological adjustment scales, and five educational-vocational interest scales.

A questionnaire was sent to the parents of all freshmen in the fall of 1964, approximately one week after the beginning of school. The questions were designed to explore parental attitudes toward higher education and to offer comparisons with the responses of students to similar questions. The parents were particularly asked concerning the commitment of the home to the college opportunity of the student and their judgment about the commitment of the student.

Each withdrawing student was classified in the study on the basis defined by his college. Students were recognized as voluntary withdrawals, academic dismissals, or disciplinary dismissals. It was recognized that the definitions of these classifications were not too clear in some cases, especially among the voluntary withdrawals.

In statistical procedures, four classifications were used: persisters, transfers and returnees, "real" voluntary drops, and academic dismissals. The "real" voluntary drops were those who withdrew from one of the cooperating colleges without return to that college or transfer to another institution within the period of the study.

The time of dropout was noted, with a distinction made between those who dropped during a semester and those who dropped at the end of the first or second semester.

Questionnaires were sent to students who withdrew. Separate questionnaires were prepared for the voluntary withdrawal, for the academic dismissal, and for the disciplinary dismissal. The questionnaires to voluntary withdrawals explored the reasons for withdrawal, the planning of the decision, and the post-withdrawal activities. An open-ended question invited comment on any phase of the experience. Those who were dropped for academic reason were asked particularly concerning their scholastic experience and the background of their failure. The questionnaire to disciplinary dismissals explored the disciplinary incident and the procedures used by the college.

A questionnaire was later sent to the parents of all students who had withdrawn. Different questionnaires were prepared for the parents of each of the three categories of students. An open-ended question invited comments from parents on any phase of the experience.

The question of transfer seemed important, distinguishing between those who dropped from education and those who simply withdrew from one of the cooperating colleges. Phone interviews were held with several hundred homes in an effort to check primarily the question of transfer These telephone calls continued until the spring of 1966, after second semester registration in most colleges. Many students were identified as transfers by this method.

Face-to-face interviews were held with a number of parents and with some students. Most of these were held in the homes of the parents, although some were with students on a campus after transfer or return. The purpose was to develop a more vivid picture of the background of withdrawal and the effects of the total experience.

Some type of return concerning the students who withdrew from the three institutions was obtained in 93 per cent of the cases, either by questionnaire of student or parent, phone interview, face-to-face interview, or by some combination of these methods.

Statistical analyses included a total of 94 variables from pre-college data, orientation test results, and questionnaires from parents of freshmen. Other data were gathered from the questionnaires to the student withdrawals and to their parents. Reasons for withdrawal were tabulated for males and for females among voluntary withdrawals and academic dismissals. The three types of withdrawals, transfers-returnees, "real" voluntary withdrawals, and academic dismissals were compared on the variables. Students who withdrew during a semester were compared with those who withdrew at the end of a semester, and responses of parents of these three groups were compared. Comparisons of the responses by students in the different college classes were made. The pre-college data and the results from the freshman orientation tests were compared among persisters, transfer-returnees, "real" voluntary drops, and academic dismissals. Similar study was made of the responses of the parents of students in these four classes. The later status of students whose parents did not return the freshman-parent questionnaire was examined.

The answers of students and parents to the open-ended question were classified by a committee of judges and tabulated for review. The results from phone and face-to-face interviews were recorded and summarized.

The basic data of the study were analyzed by multiple discriminant analysis in order to discriminate among the different categories of withdrawals and predict on the basis of these variables the category into which other students will probably fall (persister, transfer-returnee, "real" voluntary drop, or academic dismissal).

Effort was made to study college climate by the use of CUES. A report is made concerning disciplinary dismissals which were too few in number for processing by computer.

Conclusions

The stated reasons offered by voluntary withdrawals presented no pattern and averaged so low on the rating scales that they did not offer background for identification of central issues. The theory of multiple causation may be appropriate, but it assumes that the cumulative reasons are more weighty for withdrawals than for persisters. The theory of commitment regarded these stated reasons as problems common to college students; for those with relatively low levels of commitment, they become reasons for withdrawal, while for those with higher levels of commitment, they represent problems to be solved or tolerated.

The stated reasons for middle-of-the-semester withdrawals do organize into a pattern of personal problems, health, social and emotional issues. The stated explanations of academic dismissals focus upon their academic problems.

Commitment has been defined in terms of the answers to questions to students and parents concerning such issues as the term of study, plans for transfer, the judgment of parents concerning the student's commitment, the earliness of the decision to attend college. So defined, commitment proved to be measureable. It also proved to be predictive of the later decisions of students to withdraw. In the discriminant function analysis, these variables associated with commitment as a set were more important in predicting persistence than were any other sets of variables used in the study.

The involvement of parents with the issues of the study proved to be close. Parents returned the freshman-parent questionnaires in surprising percentages (95 per cent) and the parents of withdrawals responded to questionnaires, phone calls, and interviews with real cooperation. They commented upon the issues with conviction. Their judgments about commitment proved to be predictive. Reports of strained family relations were followed later by withdrawal in substantial percentage. The withdrawal rate was much higher for students whose parents failed to return the freshman questionnaire than for those whose parents did respond.

The four categories of students were discriminated reliably and in meaningful terms by discriminant function analysis, and the attrition-prone student was identified from the results in a reasonably high percentage of the cases. This finding, if supported in a replication with a new group of students, would be valuable.

Appendix

The Open-Ended Question

The last item on the questionnaire sent to former students and their parents was an open-ended question requesting a response concerning the experience. The classification of these replies is described in the body of the report. A copy of the Topical Outline is included (Table F).

In general, it should be clear that these discussions concerned topics chosen by students and parents after the completion of the questionnaire. Opportunity to discuss any phase of the experience was offered, and the topics which they selected are worth consideration.

The first general topic in this outline concerned the stated reasons for withdrawal. These reasons were classified fundamentally into two parts, the negative and the positive. Students withdrew in order to "go away from" something unsatisfactory, or they withdrew in order to "go to" something that promised to be more satisfactory. This is probably too simple an analysis. The analogy of the magnet is useful, with a negative pole repelling and a positive pole attracting. Both poles of the magnet may be effective in the withdrawal.

The negative reasons of the outline ("going away from") include academic problems, dissatisfaction with college, personal or financial problems, illness, lack of goals, and criticism of counseling. The positive reasons ("going to") include military service, romance or marriage, a new educational or vocational program, a job, and travel.

The outline also includes some stated effects of withdrawal, unfavorable and favorable. The unfavorable include difficulties at home, in the community, in further education, and with self. The favorable effects include a new maturity, a preferred situation, a job, an educational opportunity, a home, and military service.

Post-withdrawal attitudes are included in the outline and are classified as criticism or appreciation of the research study, the college, or of individual personnel. Some replies speak broadly about colleges or about students.

The answers were counted in terms of the frequency of the discussion of the topics of the outline. The scoring was done by the number of times a particular topic was mentioned. Some parents and students opened only one topic, while others wrote at some length about a variety of topics. Withdrawals during 1963-64 and 1964-65 are both included in this summary.

Of those who returned the questionnaire, 74 per cent of students and 81 per cent of parents responded to the invitation to comment in general about the withdrawal. Some replies were single sentence comments about specific points. Others were almost voluminous, requiring extra pages.

No brief summary can recover the vividness of some of these comments. Both students and parents have judgments about the college and post-college experience. The range of topic is broad and the attitudes expressed vary from the objective comment to the emotional exclamation.

These comments come from individuals who have been involved in withdrawal, either at the initiative of the student or of the college. Such comments deserve a hearing. Institutions seldom have opportunity to gather in systematic form opinions from this segment of the college community.

One response which appeared frequently was not included in the fundamental analysis. While all communications to students and parents from the Research Office avoided the use of the term "dropout," many objected even to the implication. "I am not a dropout" was put in capital letters, was underlined, was announced in red pencil and in red ink. A number of parents were similarly dramatic in their denial of any dropout. A few denied that they had dropped out, since they simply had not returned, or had just taken a job. Some who transferred were particularly vehement in the denial of "dropout." It is clear that this word "dropout" has become a "dirty word" in the American language. In spite of the use of the word withdrawal in all communications, a number of students and parents want it clear that these young people are not "dropouts."

The topics chosen by students and parents for discussion were organized into the topical outline (Table A). This table also reports the number of times each topic was discussed. The students are divided into voluntary withdrawals and academic drops with a column for each category, and the results from parents are similarly organized. Some topics were more frequently discussed by one group, and the distinction may be instructive. The disciplinary dismissals were too few to be included.

Student Responses: Voluntary Withdrawals. The topic opened most frequently by voluntary withdrawals was "the academic program and opportunity." Comments were counted in this category when the former students discussed with a negative accent such topics as the following: the required courses of the liberal arts program, heavy academic pressure on students, an unchallenging intellectual atmosphere, curricular "experiments," or the lack of specialized courses, particularly in the first year or two.

Comments about "romance or marriage" were frequently made. As one coed expressed it, she "wanted marriage more than college." In general, those who withdrew for marriage were highly appreciative of the campuses which they were leaving.

The topic, "social life and college climate," was discussed at the same level of frequency. These comments, in explaining reasons for withdrawal, reflected the two extremes--not enough social life and too much social life. A number of students criticized the "Greek system" which is found on two of the campuses. They felt that the social life of the non-member was impoverished. Some found the student body too homogeneous, with the college isolated from contemporary events. Other students found all too much social life as the chief distraction from study.

Next in order of frequency of reasons was positive, "going to." A "preferred situation" was found in a new "educational opportunity or a larger school." Comments were classified under this topic when the emphasis was on a general situation.

Closely related to this topic were students' reports of transfer to a "new educational program," involving a particular sequence of courses. Students went for a degree in real estate, for courses in accounting, for medical technology, for a dental hygiene program, for commercial advertising, for industrial design, for speech therapy, for nursing, for music. One student commented that the liberal arts college proposes to teach students to make intelligent decisions, and after two years of such training, he applied this ability to his search for a particular major and withdrew.

A number of students report withdrawal primarily for financial reasons, sometimes transferring to schools where expenses were reported as lower. Some reported transfer most unwelcome, but financially necessary.

These voluntary withdrawals frequently offered "counsel" to other students. Many points were covered in these comments: avoid the bridge table; be careful in the choice of friends; get a good start in the first month; do not cut classes; take easier work the first year; consult counselors, professors, dean, or anyone who "knows the score"; do not drop out--stick to it no matter what; tell them to stop complaining--they won't know what they have until they lose it; "I left heaven for hell," said one who enlisted; if dissatisfied with the college, transfer. Many of these comments are vivid and serious.

Next in order of frequency of comment was an effect of withdrawal, "a new maturity." This phrase was often used by the students. One student reported that she learned more by leaving school than by attendance. One learned the value of an education, and she now wants to be in the intellectual world. Another found time to make a decision on major field. One knows now "how I don't want to live."

A number expressed "appreciation of the college." The work and the experience were described as memorable, enjoyable, stimulating, superior, full of opportunity. Others commented in "criticism of or antagonism to the college." Comments were classified here when the criticism were broad. One student found one of the colleges an impossible place for her to accomplish anything. Another found only "bad food, bad housing, and difficult courses." College policies and rules were discussed the same number of times.

Certain topics were mentioned less frequently, as an examination of the table shows. Mention of academic problems belongs in this group, although they were sometimes implied in discussions of related topics. Comments about the research itself were made, including such phrases as "thanks for the chance to be heard" and requests for the results of the research.

The voluntary withdrawal discussed negative factors more often than positive. Marriage was the central exception. In the academic field, both factors were included, with negative attitudes toward some phases of the academic program and positive attitudes toward a new educational opportunity.

Student Responses: Academic Dismissals. The pattern of responses among students who were dismissed for academic reasons varies from the pattern of those who withdrew voluntarily. The reason for withdrawal was the action of the college, and comments involve other issues.

First in order of frequency was a reported effect of the experience, the discovery of a "new maturity." A number say, "I grew up" as a result of the failure.

Second in rank among these young people was a straightforward statement of "lack of educational goals." The student reported that he had lacked serious educational purposes.

In order of frequency, other comments included the following topics: the lack of counseling, the offer of counsel to other students, statements of appreciation of the research study, and the explicit report of academic problems. Academic problems were implied more often, as the student discussed related issues.

Most of these topics are clearly related to the theory of commitment. The academic dismissal revealed to the former student his earlier immaturity and lack of serious purpose. The criticisms of counseling may project the problem on advisers who failed to inspire more mature and serious attitudes. The counsel to other students and the appreciation of the research study typically express the new attitude in words which can be readily translated into a theory of commitment. One cannot conclude that further college opportunity would bring these new insights to fruition, since old habits often overwhelm new resolutions. But these students in substantial number report the new insights.

In summary, the voluntary withdrawals emphasize the academic opportunity, marriage, social life, and expense. The academic dismissals focus on the question of maturity, lack of educational goals, the counseling program of the colleges, and the difficulty of the academic program.

The Open-Ended Question: Parents' Responses. The responses of parents to the open-ended question of the parents' questionnaires are reported in two parts: a discussion in the order of frequency of the topics often chosen by the parents; some contrasts between the reports of parents and the reports of students.

The most frequently discussed topic was the "counseling program" of the college, often identified with supervision of student life. Many comments were stated in emphatic terms, either in expressions of appreciation or criticism. The parents of academic drops discussed this topic in a high percentage of the cases.

Appreciation of good counseling seemed to center in the interest of counselors in students. When a professor or dean or president took time to consider with a student his educational program or his personal problem, parents expressed appreciation.

The more frequent responses, however, called for more adequate guidance and supervision. The typical comments emphasized the failures. The attitude of counselors who dealt with these young people was often interpreted as reluctant, and the time given for these duties was all too limited. Some parents felt that the counselors knew little, if anything, about their students.

Many comments by parents identified counseling with supervision, especially of freshmen. One parent noted that his freshman son "was a thousand miles from home" in a new situation; maturity adequate for home life may be inadequate for dormitory living. A counselor with responsibility for supervision was needed.

Some parents cited specific cases of alleged inadequate educational counseling: advanced courses, or a heavy load during the first semester of the freshman year, or unhappy recommendations of major fields. In the area of personal problems, parents offered trenchant criticisms: several students with nervous disorders, as reported by parents, were misunderstood by the counselors; one student, with a serious acne problem, found no understanding of the unfavorable social response of other students; another with a health problem was refused a lighter load.

The topic which ranks second in order of frequency of parents' response was termed "criticism of or antagonism to the college." Parents of academic drops made most of these comments. Parents were particularly critical of lack of communication from the college. They sometimes contrasted the number of requests for money with the infrequency of communications about the student. The receipt of form letters did not pacify these parents. Several complained that they had written to advisers and had received no answer. The complaints from parents whose students were dropped for academic reasons were particularly emphatic in this area of communication.

The relationship of many of these comments to the criticism of the counseling programs is close. The absence of communication with the home and the lack of conferences with the student were mentioned together.

A number of parents protest the college assumption of the maturity of students. In asking for communication with the home, they insisted that these home relationships are educational resources readily available to the college. They felt that they should be used before problems become acute.

Some of the parents were critical of the emphasis placed in these colleges on the superior student, leaving students with fewer talents frustrated. Another described the situation as an "intense drive for status" among colleges in contrast with an effort to stimulate the growth of young people.

A number of parents commented about "romance or marriage." These comments came chiefly from the parents of women and seldom expressed disapproval. "Most women go to college to look for a husband," and, if success comes before graduation, these parents approve. Some clearly express a sense of tragedy; one daughter "married another nit-wit" without informing the family. Others modify disappointment with the hope that the daughter will continue in college later.

In a couple of cases, parents reported that the marriage followed a pregnancy. These parents expressed the hope that, by frankness, they might ease the burden of other parents under similar circumstances, recommending the frank facing of the facts and a posture which would be constructive for the new home. The methods of this study cannot reach some problems in this area, the emotional involvements and the deep distractions.

"Appreciation of the college" was often expressed, especially by parents of voluntary withdrawals. Parents were "deeply grateful"; the student "benefitted both academically and socially"; "a fine Christian school"; "an excellent faculty"; "the college gave her the benefit of every doubt"; "the college gave him a real chance."

The college was reported "too expensive." They reported that the attempt to pay the college bills represented an increasing sacrifice, and the students often transferred to other institutions.

The "social life" was criticized, either as dull and inadequate or as excessive, bringing poor grades. Some found some social influences undesirable in kind and proposed stricter rules to curb extravagances. The life of the fraternity or sorority was mentioned several times, either as disappointment for non-members or as involvement in superficial interests.

A number of parents commented on the "new maturity" which the withdrawal had stimulated. They frequently used such expressions as "waking up," "grew up," "find himself," "matures." One reported this period as time given to "stand back and look at the future" without pressure. The marks of the new maturity were variously reported as self reliance, self confidence, emotional stability, the ability to face responsibility. The responsibilities of a job contributed to the growth. Some students worked by day and attended night school, and this was a sobering regimen.

"Criticism or antagonism" was directed against individual personnel, often on the basis of an incident. One professor seemed loathe to give time to a parent, although an appointment had been made. One teacher is alleged to have called his class "bourgeois animals," and resentment rankled with one parent for months after transfer. One professor advised a student to transfer to a less demanding school; the father reported, with understandable pride, that the student "is now on the Dean's list in his new institution."

The sharpest of the criticisms were reserved for those in the personnel field and in the administrative area. They often involved specific indicents: the house mother who did not work well with a roommate problem; a financial officer who reduced a scholarship but restored it upon threat of withdrawal; a student who needed psychiatric aid but got, instead, a "two-hour harangue from a dean"; a dean of women who promised a room change without any performance on the promise; a president who announced a program for educating only the elite, which a father regarded as a callous, unchristian attitude.

The experience of withdrawal leaves with some parents an attitude of criticism, even antagonism, and a vivid memory of phrases and incidents supports the attitude, admitting no modifying context.

These parents report that the realization of the need of education was a central result of the withdrawal. One young man developed "respect for the necessity of advanced education," and a young woman dropped for academic deficiencies, "got up on the count of 9" and is back in college working very hard. One mother took the money refunded when her son was dropped for poor academic work and went to college herself. She reports that this example had an amazing effect upon the young man, and upon the younger child in the home. They found education highly prized.

Parents reported on "illness," sometimes involving psychiatric consultation, and on "personal problems." College life brought tensions to some which made students "confused," "worried," "afraid." One daughter left home happy, a church worker, an honor graduate from high school, and returned after an academic drop, nervous, upset, rebellious, profane. A few parents responded to these problems with antagonism to the youth. One young man became unruly--"he knew it all" and will return to college only by his own money. Another was reported to be just lazy. But most parents accept withdrawal on the basis of personal problems simply as a part of the pain of "growing up."

"Academic difficulties" were discussed rather often and assumed in other discussions of related issues. Some parents simply reported that the academic work was overwhelming and demanded a constant struggle. A few felt that college work did not match the talents of the student; e.g., the young woman who had particular ability in music, without the abilities for other college subjects. Some recognized such familiar issues as lack of effort, class "cuts," poor background, or too much social life.

An examination of the tables of parents' responses shows some items that parents infrequently include in their discussions: the type of student on campus, student government, student need for independence, the lack of a vocational goal, withdrawal for travel, and difficulties in the home or in the community in connection with the withdrawal.

In summary, parents responded to the open-ended question commenting most frequently about the non-academic phases of college life. They were frequently critical of the counseling and supervision of students and of the lack of communication with the home, especially when problems arose. Parents expressed criticism more often than students. They commented on campus romance or marriage, usually with understanding. Other topics included academic problems, a new educational opportunity, appreciation of the college, the expense, and the social life on campus. The accent of the discussions of parents is on college climate and background for academic work, rather than upon curriculum, classroom and scholarship.

Contrasts: Students and Parents. An examination of Table F reveals differences between students and parents in the topics chosen for discussion. Although parents must gather much of their information about the college from the student and his friends, both the topics chosen and the emphasis vary at significant points.

One of the striking contrasts concerns college policies and rules. Parents seldom discuss these matters directly, but they do involve them in discussions of other topics, especially counseling. Students who commented complained about the strictness of the rules, with only an occasional proposal of more supervision of student life. Some students spoke of "endless rules" in dramatic phrases. A few parents developed a similar theme, the college denial of student maturity. Most of the parents stated that there is "too much freedom" and not enough supervision. They propose discipline, stricter rules on hours, and a compulsory study hall for probation students.

When students discussed counseling, they tended to focus on the academic adviser. Most comments were negative and criticized the adviser who proposed the overload, the course that was too advanced, or the limited time given by the adviser. One student reported that after spending two years and $5,000 at the school, his adviser could "give me only five minutes to tell me that I was not applying myself." Other students were appreciative of the help of advisers and administrative officers.

The comments of parents involved many more issues, curricular guidance, social supervision, the need for counseling before issues became critical, the letters which parents wrote to advisers without a reply.

These parents opened topics which are widely discussed in educational circles today. They are parents of students in smaller institutions, in contrast with large universities, and of students who have withdrawn. They are not a representative sample. Judging from their reports, however, many parents advocate effective supervision of student life rather than student freedom. This applies especially to the first year of college.

The academic program and opportunity was mentioned by students much more frequently than by parents. Some parents mentioned a weak major or requirements which limit electives. Students were much more specific as they discussed a variety of topics: the "rigid curriculum," the difficulty of the courses, certain courses which were "horrible" or unimportant, emphasis upon theory rather than upon the practical, the lack of a stimulating classroom atmosphere.

The development of a new maturity was mentioned both by students and by parents as an effect of withdrawal. Students reported such growth more often than did the parents, and the academic drops made such a report in a larger percentage of cases than did the voluntary drops. Students on a job found real need for education in the modern world, a more vivid sense of future, the recognition that he had been immature in college, and frequently the determination to return with a "more adult attitude." Parents tended to express satisfaction as they observed these evidences of more mature attitudes.

Table F reports in summary form other contrasts between comments of parents and of students. Parents expressed more appreciation of the college and also more criticism. The criticisms came most frequently from parents of academic drops, often as an anecdotal report or as a statement about lack of communication with the home. Students offered frequently some advice to other students, while parents seldom attempted such counsel. Students discussed the type of student on the campus, while parents rarely mentioned the topic. Other contrasts and similarities are suggested by the table.

Home Interviews

Interviews were held with 20 parents and 12 students. The purpose was to gather background information. Two interviewers conducted the interviews, summarizing and rating soon after the conference.

The interviews with parents were held in their homes, with one exception. These homes were chosen chiefly in terms of convenient location. When choice was possible for the interviewers, they chose homes which had not returned a questionnaire. Some interviews with students were in their homes, and others were on campus after transfer or return.

The interviews lasted from 10 minutes to an hour. A semi-structured outline was prepared, but the most productive discussions were spontaneous.

The interview outline follows:

Name ______________________________ ID No. ________________

I. Background of and Reasons for Withdrawal

1. Personal and Family Problems
    (a) Finances; (b) Home problems; (c) Emotional problems; (d) Marriage; (e) Sickenss

2. On-campus Experience
    (a) Academic--courses; career plans; grades; study habits
    (b) Characteristics of the school--meals; rules and other factors related to the school; uncongenial background of the school; traditions, etc.
    (c) Social life--congeniality of students (gang)
    (d) Extra-curricular activity--excess or deficit of such activities; meaningful
    (e) Teacher and/or counselor (negative or positive)

II. College Expectations vs. College Realities

1. High School background

III. Present Activity

IV. Plans for the Future

1. Further college study
2. Technical training
3. Job or business
4. Marriage

V. Evaluation of Withdrawal

1. Results in the present and immediate past
2. Results for the next couple of years
3. Results for the more distant future

The outstanding impression to the interviewers was the vividness of the experience. The cordiality of the homes was surprising, even in cases where the student had been dropped at the initiative of the college for academic or disciplinary reasons. These homes still felt close to the college. The college had become a part of the life of the home.

At the close of the interview, the interviewers rated three points: the attitude toward the college, the attitude in the interview, and the attitude toward higher education. These ratings were made on a nine point scale, and the results are reported in Table G.

Brief summaries of selected interviews are presented as illustrations of the kind of information offered by parents and by students.

One interview was held in the home of the mother and stepfather of the student. The father had agreed to send the student to college, but later he withdrew the support. The stepfather in the home had supported education for a time but finally found this too burdensome. This is a case in which the reason for withdrawal was given as financial. There was a background here which involved more than money. The student lived in the home with the mother and was working. There is little probability that the student will return to college.

An interview was held with a negro mother. Both parents were teachers and had a high appreciation of the value of education for the daughter. She had found a minimum of social life with young men on the campus, after a high school experience with much social opportunity. The mother felt that disillusionment and unhappiness had affected her grades. She transferred to an institution in which there were more members of her own race. The interview included some discussion of racial relationships and the effects of this college experience upon this young woman.

An interview was held with the mother of a young woman who withdrew from college on account of a pregnancy. This mother offered to give any information, if this could assist any other mother in facing such a problem. The home took a constructive attitude toward the new home in spite of serious disappointment. While details of the interview were too personal for report, the interviewers sampled here the home and community implications of a situation not unknown on campuses.

One father was interviewed in his office. His daughter had dropped from her third institution. He had no particular regrets and was not convinced of the importance of education for women, especially in view of the limited academic drive of his daughter. The home seemed to have little commitment to higher education for women. The young woman is out of college working in an industry connected with her father's business. Both the home and the young woman seem to be satisfied, even happy, with this development.

An interview was held with a mother in a very modest home. The son had withdrawn from college in order to work and save his money to return to school. He was an active church worker, looking forward to the ministry. The mother reported that he "studies all the time." He continues his studies at night while working. The mother works at modest tasks and can give little help. The father is dead. This is one of the cases in which financial problems represent the full reason for temporary withdrawal.

In the home of a professional man, the interview with the parents of an academic dismissal began with a statement that some personal matters would be withheld. Later in the conversation, they disclosed these personal matters and spoke about their former separation and the disturbance involved for their son. He had transferred to another institution, and they felt that he was doing much better. The young man had hoped that good grades in the new institution would merit a return to his former college. The parents were quite critical because the first institution had refused to readmit him after superior grades in the second institution.

An interview was held with a father in the home, concerning an academic dismissal. The home had talked higher education to the young lady since early childhood. Her high school work ranked her barely in the upper third. The home had had her tested by psychologists for academic aptitude, and the results seemed to indicate the necessity of real effort for good grades. She did poorly in her freshman year and was dropped at the end of that time. They had arranged for a single room to encourage study, but other girls in the dormitory tended to bring problems to her until her room became a gathering place. The father was critical of the lack of communication among housemothers, faculty, and administrative officers about such problems. He, as a physician, said that the college was responsible for a diagnosis. She was working at the time of the interview and was planning marriage. She probably would not return to college.

An interview was held with parents of a disciplinary dismissal. The young man, after an evening of drinking, was involved in a theft. The parents felt that the stealing was more a stunt than a desire for the things which were stolen, since the youth had no use for the items. The arrest, the dismissal from college, and enlistment in the armed forces were all complete before the parents had any word either from the son or the college. He was doing well in special training in the armed forces.

Some interviews were held with students. A young woman was interviewed on campus after return. She had withdrawn after a couple of years in the institution, reporting that many petty problems on campus brought a situation which she could endure no longer. She had never planned to drop her education but wanted a break from college work. She suspected that psyciatric help might be of value to her. As she returned, she identified herself with a negro group on campus, rooming with a negro, and being active in civil rights efforts. Her activities were connected with home attitudes where negro students often visited. A sister dated a negro, but she had not done so. The overtones of racial relationships were very important in the college experience of this young woman.

A conference was held with a young man, in part in the presence of his father. He had been dropped for academic reasons. He had been a borderline student during a period of a couple of years. In the end he was dropped for a fractional deficiency in grade point average. He was shocked and frightened by this experience. He transferred to another institution where he was doing satisfactory work at the time of the interview. New maturity was achieved during this experience, he reported, but some antagonism continued in the home which had been affiliated with this institution rather actively.

An interview with a young man was held on campus. He had been readmitted after an academic dismissal. He reported little effort in academic work in high school. The academic drop represented real problems in the home, and his parents were "holding their breath" to see the outcome of the second chance. He had found in his dormitory a "don't care" attitude which made it easier to conform than to work hard. He changed dormitories upon his return and found the situation more conducive to study. His grades were not good enough, he felt, for graduate work, and he expected to be in the Army without too much delay.

An interview was held on campus with a young man who previously had been dropped for disciplinary reasons. He considered the college rules "silly" and felt that the college was worried about its own image rather than about the problems of students. He was planning to go to graduate school.

TABLE A

REASONS FOR WITHDRAWAL: VOLUNTARY WITHDRAWALS AND TRANSFERS

		ALL SUBJECTS		MALES		FEMALES			
		$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.	t-test males vs females	per cent variance
1.	Illness or physical disability (self)	1.15	.50	1.10	.43	1.18	.54	1.75	
2.	Concern about illness or physical disability (family)	1.10	.40	1.09	.36	1.12	.42	.86	
3.	Concern about finances	1.73	.87	1.84	.88	1.67	.85	2.35*	.75
4.	Upset by difficulties at home	1.20	.51	1.19	.48	1.21	.53	.49	
5.	College courses were not challenging	1.29	.60	1.34	.63	1.25	.58	1.72	
6.	Not interested in courses	1.45	.68	1.56	.71	1.39	.65	3.07**	1.39
7.	Lack of definite plans for major	1.33	.64	1.38	.66	1.30	.63	1.57	
8.	Lack of definite career plans	1.38	.67	1.45	.70	1.34	.65	2.05*	.53
9.	Lack of ability to do work required	1.18	.47	1.19	.49	1.17	.45	.46	
10.	Secondary school preparation was poor	1.17	.45	1.24	.51	1.13	.40	2.86**	1.19
11.	Discouraged by low grades	1.40	.69	1.47	.72	1.36	.66	1.93	
12.	The school was too big	1.02	.15	1.02	.15	1.02	.16	.23	
13.	The school was too small	1.51	.77	1.41	.69	1.57	.80	2.59**	.95
14.	Professors lacked interest in students	1.21	.50	1.23	.50	1.20	.50	.82	
15.	Professors lacked competence	1.20	.48	1.24	.52	1.17	.45	1.80	
16.	Advising was inadequate	1.38	.66	1.45	.71	1.33	.62	2.13*	.59
17.	Examinations were unreasonable	1.15	.43	1.18	.47	1.14	.39	1.36	
18.	I did not find enough social life	1.42	.70	1.36	.66	1.46	.72	1.75	
19.	I found too much social life	1.10	.37	1.15	.44	1.07	.31	2.69**	1.03
20.	My housing situation caused difficulties	1.27	.59	1.34	.65	1.23	.55	2.12*	.58
21.	Emotional problems	1.42	.72	1.45	.72	1.40	.72	.79	
22.	The students were not my type	1.27	.58	1.30	.60	1.24	.57	1.20	
23.	I was homesick	1.11	.40	1.06	.27	1.15	.46	2.66**	1.01
24.	I was lonely	1.18	.48	1.16	.46	1.18	.48	.55	
25.	My study habits were poor	1.42	.68	1.60	.78	1.30	.59	5.42**	4.54
26a.	Unreasonable college rules and regulations	1.40	.67	1.51	.73	1.33	.62	3.13**	1.45
27a.	Meals were extremely poor	1.13	.40	1.16	.44	1.10	.38	1.53	
28a.	I need a temporary break from studies	1.29	.63	1.28	.62	1.30	.63	3.30	
29a.	Married recently or will be married soon	1.34	.72	1.15	.49	1.46	.81	5.11**	4.04
30a.	My spouse graduated	1.07	.36	1.00	.00	1.11	.45	3.66**	2.03
31a.	Having a baby	1.08	.38	1.06	.31	1.09	.41	1.10	
N		597		228		369			

TABLE A (Contd)

REASONS FOR WITHDRAWAL: ACADEMIC DISMISSALS

		ALL SUBJECTS		MALES		FEMALES			
		$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.	t-test males vs females	per cent variance
1.	Illness or physical disability (self)	1.27	.58	1.24	.56	1.35	.63	1.18	
2.	Concern about illness or physical disability (family)	1.23	.57	1.20	.52	1.31	.68	1.19	
3.	Concern about finances	1.56	.76	1.63	.77	1.39	.70	1.90	
4.	Upset by difficulties at home	1.45	.68	1.42	.67	1.53	.70	.99	
5.	College courses were not challenging	1.49	.70	1.49	.71	1.51	.67	.18	
6.	Not interested in courses	1.97	.73	1.94	.75	2.04	.69	.84	
7.	Lack of definite plans for major	1.87	.84	1.80	.81	2.06	.88	1.89	
8.	Lack of definite career plans	1.97	.85	1.94	.83	2.04	.89	.66	
9.	Lack of ability to do work required	1.48	.63	1.43	.60	1.59	.70	1.48	
10.	Secondary school preparation was poor	1.65	.79	1.64	.78	1.67	.82	.18	
11.	Discouraged by low grades	2.06	.77	2.01	.76	2.18	.79	1.33	
12.	The school was too big	1.02	.18	1.02	.12	1.04	.28	.79	
13.	The school was too small	1.26	.57	1.25	.57	1.27	.57	.28	
14.	Professors lacked interest in students	1.37	.57	1.29	.53	1.59	.60	3.29**	5.17
15.	Professors lacked competence	1.31	.55	1.30	.57	1.33	.52	.34	
16.	Advising was inadequate	1.89	.83	1.81	.81	2.10	.85	2.14*	1.95
17.	Examinations were unreasonable	1.39	.59	1.33	.55	1.55	.67	2.22*	2.14
18.	I did not find enough social life	1.22	.51	1.24	.54	1.16	.42	.99	
19.	I found too much social life	1.56	.78	1.56	.78	1.55	.78	.13	
20.	My housing situation caused difficulties	1.55	.81	1.52	.80	1.63	.82	.81	
21.	Emotional problems	1.73	.81	1.65	.79	1.94	.83	2.19*	2.07
22.	The students were not my type	1.10	.37	1.12	.41	1.06	.24	.94	
23.	I was homesick	1.10	.38	1.11	.40	1.08	.34	.47	
24.	I was lonely	1.19	.47	1.23	.52	1.10	.30	1.72	
25.	My study habits were poor	2.46	.72	2.46	.74	2.45	.67	.05	
26b.	Too many hours given to work for pay	1.27	.57	1.29	.60	1.22	.46	.84	
27b.	Lack of serious effort in academic work	2.42	.75	2.47	.74	2.29	.76	1.45	
28b.	Irregular class attendance	1.68	.79	1.65	.75	1.76	.88	.87	
29b.	I dated too much	1.37	.62	1.31	.58	1.51	.70	1.95	
30b.	I was too active in extra- curricular activities	1.26	.56	1.27	.57	1.25	.52	.18	
31b.	I gave too much time to team sports	1.15	.40	1.17	.42	1.12	.32	.81	
N		180		129		51			

TABLE B
REACTIONS TO WITHDRAWAL: ALL VOLUNTARY WITHDRAWALS AND TRANSFERS

	ALL STUDENTS			MALES			FEMALES			t-test males vs females	per cent variance
	f	%		f	%		f	%			
1) Number who knew of withdrawal before the fact											
0.	34	6		16	7		18	5			
1.	126	21		55	24		71	19			
2.	148	25		60	26		88	24			
3.	138	23		46	20		92	25			
4.	91	15		38	17		53	14			
5.	60	10		13	6		47	13			
$\bar{x}$			2.51			2.32			2.63	2.62**	.97
S.D.			.14			1.34			1.40		
2) Other students knew											
0. No	149	25		65	29		84	23			
1. Yes	448	75		163	71		285	77			
$\bar{x}$			.75			.71			.77	1.57	
S.D.			.43			.45			.42		
3) Faculty advisers knew											
0. No	395	66		162	71		233	63			
1. Yes	202	34		66	29		136	37			
$\bar{x}$			.34			.29			.37	1.99*	.49
S.D.			.47			.45			.48		
4) Family knew											
0. No	76	13		40	18		36	10			
1. Yes	521	87		188	82		333	90			
$\bar{x}$			.88			.82			.90	3.16**	1.48
S.D.			.36			.38			.34		
5) Faculty member knew											
0. No	397	66		158	69		239	65			
1. Yes	200	34		71	31		129	35			
$\bar{x}$			.34			.31			.35	1.24	
S.D.			.48			.46			.50		
6) Resident counselor knew											
0. No	463	77		185	81		278	75			
1. Yes	134	23		43	19		91	25			
$\bar{x}$			.33			.19			.25	1.57	
S.D.			.46			.43			.48		

TABLE B (Cont)

	ALL STUDENTS			MALES			FEMALES			t-test males vs females	per cent variance
	f	%		f	%		f	%			
7) Decision considered at length											
1. No	68	11		27	12		41	11			
2. Hard to state	95	16		38	17		57	15			
3. Yes	434	73		163	71		271	73			
$\bar{x}$			2.61			2.60			2.62	.34	
S.D.			.70			.70			.70		
8) College representatives gave assistance											
1. No	75	12		25	11		49	13			
2. No opportunity	155	26		66	29		89	24			
3. Limited assistance	98	16		31	14		67	18			
4. Yes	269	45		106	46		163	44			
$\bar{x}$			2.94			2.96			2.93	.32	
S.D.			1.10			1.09			1.11		
9) Planned to get degree here at time of enrollment											
1. No	64	11		28	12		36	10			
2. Not sure	107	18		43	19		64	17			
3. Yes	426	71		127	69		269	73			
$\bar{x}$			2.61			2.57			2.63	1.20	
S.D.			.68			.70			.66		
10) Most of the hometown "gang" went to college											
1. No	69	11		36	16		33	9			
2. Not sure	31	6		15	7		16	4			
3. Yes	497	84		177	78		320	87			
$\bar{x}$			2.72			2.62			2.78	2.81**	1.14
S.D.			.67			.74			.60		
11) Parents have been satisfied with withdrawal											
1. No	91	16		47	21		44	12			
2. Not sure	92	16		39	17		53	14			
3. Yes	414	69		142	62		272	74			
$\bar{x}$			2.54			2.42			2.62	3.17**	1.49
S.D.			.75			.81			.70		
12) Parents want me to return to college											
1. Oppose return	7	1		2	1		5	1			
2. Indifferent	49	8		13	6		36	10			
3. Desire return	540	91		213	93		327	89			
$\bar{x}$			2.90			2.93			2.89	1.22	
S.D.			.38			.29			.43		

TABLE B (Cont)

	ALL STUDENTS f	ALL STUDENTS %	MALES f	MALES %	FEMALES f	FEMALES %	t-test males vs females	per cent variance
13) Plan to return to this college								
1. No	422	70	145	64	277	75		
2. Undecided	59	10	32	14	27	7		
3. Yes	117	20	51	22	66	18		
$\bar{x}$		1.49		1.59		1.43	2.40*	.80
S.D.		.80		.83		.78		
14) Plan to continue college work elsewhere								
1. No	61	10	20	9	41	11		
2. Undecided	68	11	30	13	38	10		
3. Yes, and already transferred	468	79	178	78	290	79		
$\bar{x}$		2.68		2.69		2.67	.47	
S.D.		.67		.62		.69		
15) Experiences after withdrawal should be helpful in any future college work								
1. No	53	9	21	9	32	8		
2. Not sure	184	31	60	26	124	34		
3. Yes	360	61	147	64	213	58		
$\bar{x}$		2.51		2.55		2.48	1.21	
S.D.		.66		.66		.67		
16) Now have reasonably clear plans for the distant future								
1. No	48	8	17	7	31	8		
2. Somewhat	135	23	58	25	77	21		
3. Yes	414	69	153	67	261	71		
$\bar{x}$		2.61		2.60		2.61	.42	
S.D.		.65		.63		.67		
Plans for present and near future								
17) Working full time								
0. No	376	63	145	64	231	63		
1. Presently	147	25	71	31	76	21		
2. Near future	74	12	12	5	62	17		
18) Military service								
0. No	560	94	194	85	366	99		
1. Presently	15	3	12	5	3	1		
2. Near future	22	4	22	9	0	0		

TABLE B (Cont)

	ALL STUDENTS		MALES		FEMALES		t-test males vs females	per cent variance
	f	%	f	%	f	%		
19) College study								
0. No	101	17	35	15	66	18		
1. Presently	383	64	147	64	236	64		
2. Near future	113	19	46	20	67	18		
20) Travel								
0. No	505	95	185	81	320	87		
1. Presently	24	4	13	6	11	3		
2. Near future	68	11	30	13	38	10		
21) Working part time								
0. No	473	79	174	76	299	81		
1. Presently	85	14	43	19	42	11		
2. Near future	39	6	11	5	28	8		
22) Housewife								
0. No	491	82	227	99	264	72		
1. Presently	68	11	1	1	67	18		
2. Near future	38	6	0	0	38	10		
23) Not much of anything								
0. No	591	99	226	99	365	99		
1. Presently	5	1	2	1	3	1		
2. Near future	1	1	0	0	1	1		

TABLE C

REACTIONS TO WITHDRAWAL: ALL PARENTS OF VOLUNTARY WITHDRAWALS AND TRANSFERS

	ALL STUDENTS			MALES			FEMALES			t-test males vs females	per cent variance
	f	%		f	%		f	%			
1) Had known beforehand that withdrawal was being considered											
1. Only after complete	13	3		9	5		4	2			
2. Only at time of withdrawal	44	10		25	13		19	7			
3. Yes, for several days	60	13		35	18		25	10			
4. Yes, for weeks or more	342	74		127	65		215	82			
$\bar{x}$			3.59			3.43			3.71	3.96**	3.10
S.D.			.78			.88			.66		
2) Had a part in the decision to withdraw											
1. Not consulted	22	5		17	9		5	2			
2. No real part	36	8		15	8		21	8			
3. Consulted, but student decided	186	40		83	42		103	39			
4. Active part	215	47		81	41		134	51			
$\bar{x}$			3.29			3.16			3.39	3.02**	1.74
S.D.			.81			.90			.72		
3) College representatives gave ample assistance											
1. No.	71	15		31	16		40	15			
2. No opportunity	135	29		55	28		80	30			
3. Limited help	60	13		28	14		32	12			
4. Yes	193	42		82	42		111	42			
$\bar{x}$			2.82			2.82			2.81	.07	
S.D.			1.14			1.14			1.14		
4) Student planned to get degree here at time of enrollment											
1. No	32	7		13	7		19	7			
2. Not sure	99	21		41	21		58	22			
3. Yes	328	72		142	72		186	71			
$\bar{x}$			2.64			2.66			2.63	.40	
S.D.			.61			.60			.61		

TABLE C (Cont)

	ALL STUDENTS			MALES			FEMALES			t-test males vs females	per cent variance
	f	%		f	%		f	%			
5) Students derived benefits from the college experience											
1. No	28	6		13	7		15	6			
2. Not sure	53	11		25	13		28	11			
3. Yes	378	82		158	81		220	84			
$\bar{x}$			2.76			2.74			2.78	.76	
S.D.			.55			.57			.54		
6) Have been satisfied with the withdrawal											
1. No	71	15		42	21		29	11			
2. Somewhat disappointed	117	25		53	27		64	24			
3. Yes	271	59		101	52		170	65			
$\bar{x}$			2.44			2.30			2.54	3.78**	2.81
S.D.			.75			.80			.69		
7) Want student to return to college											
1. No	9	2		0	0		9	3			
2. Indifferent	48	10		10	5		38	14			
3. Yes	402	88		186	95		216	82			
$\bar{x}$			2.86			2.95			2.79	4.34**	3.74
S.D.			.40			.22			.49		
8) Student plans to return to this college											
1. No	353	78		134	68		219	83			
2. Undecided	52	11		32	16		20	8			
3. Yes/has already returned	54	12		30	15		24	9			
$\bar{x}$			1.35			1.47			1.26	3.32**	2.14
S.D.			.68			.75			.61		
9) Student plans to continue college work elsewhere											
1. No	53	11		14	7		39	15			
2. Undecided	63	14		29	15		34	13			
3. Yes/has already transferred	343	75		153	78		190	72			
$\bar{x}$			2.63			2.71			2.57	2.11*	.75
S.D.			.68			.59			.74		

TABLE D
REACTIONS TO WITHDRAWAL: ALL ACADEMIC DISMISSALS

	ALL STUDENTS			MALES			FEMALES			
	f	%		f	%		f	%		t-test males vs. females
1) Probationary status before withdrawal										
1. No negative classification	10	5		8	6		2	4		
2. Warning	18	10		13	10		5	10		
3. Academic probation	152	84		108	84		44	86		
$\bar{x}$			2.79			2.78			2.82	.55
S.D.			.53			.55			.48	
2) Probation or warning stimulated to increased effort										
1. No	50	27		34	26		16	31		
2. Temporarily	79	44		60	47		19	37		
3. Yes	51	28		35	27		16	31		
$\bar{x}$			2.00			2.01			2.00	.26
S.D.			.88			.88			.87	
3) Recognized that the academic situation was serious sometime ago										
1. After final grades	21	12		12	9		9	18		
2. Last week or two	10	6		6	5		4	8		
3. Last five or six weeks	56	31		44	34		12	24		
4. Several months ago	93	52		67	52		26	51		
$\bar{x}$			3.23			3.29			3.08	1.27
S.D.			1.00			.93			1.15	
4) Friends were good students academically										
1. No	31	17		24	19		7	14		
2. Not sure	24	13		19	15		5	10		
3. Yes	125	70		86	67		39	76		
$\bar{x}$			2.52			2.48			2.63	1.15
S.D.			.77			.79			.72	
5) Was in serious difficulty for breaking rules at one time										
1. No	149	83		104	81		45	88		
2. Not serious	16	9		13	10		3	6		
3. Yes	15	9		12	9		3	6		
$\bar{x}$			1.26			1.29			1.18	1.11
S.D.			.60			.63			.52	

TABLE D (Cont)

	ALL STUDENTS			MALES			FEMALES			t-test males vs. females
	f	%		f	%		f	%		
6) College representatives gave ample assistance										
1. No	74	41		52	40		22	43		
2. Limited help	45	25		32	25		13	25		
3. Yes	61	34		45	35		16	31		
$\bar{x}$			1.93			1.95			1.88	.44
S.D.			.87			.87			.86	
7) Withdrawal significantly affected home relationships										
1. No	61	34		41	32		20	39		
2. Somewhat	91	51		67	52		24	47		
3. Yes	28	16		21	16		7	14		
$\bar{x}$			1.82			1.84			1.75	.89
S.D.			.68			.68			.69	
8) Withdrawal significantly affected community relationships										
1. No	111	62		84	65		27	53		
2. Somewhat	56	31		36	28		20	39		
3. Yes	13	7		9	7		4	8		
$\bar{x}$			1.46			1.42			1.55	1.26
S.D.			.63			.62			.64	
9) The experience is affecting opportunities for further education										
1. No	50	28		37	29		13	25		
2. Somewhat	74	41		55	43		19	37		
3. Yes	56	31		37	29		19	37		
$\bar{x}$			2.03			2.00			2.12	.92
S.D.			.77			.76			.79	
Plans for Present and Near Future										
10) Working full time										
0. No	70	39		52	40		18	35		
1. Presently	91	51		65	50		26	51		
2. Near future	19	10		12	10		7	14		

TABLE D (Cont)

		ALL STUDENTS		MALES		FEMALES		t-test
		f	%	f	%	f	%	males vs females
11)	Military service							
	0. No	140	78	89	69	51	100	
	1. Presently	18	10	18	14	0	0	
	2. Near future	22	12	22	17	0	0	
12)	College study							
	0. No	50	28	30	23	20	39	
	1. Presently	62	34	47	36	15	29	
	2. Near future	68	38	52	40	16	31	
13)	Travel							
	0. No	163	91	117	91	46	90	
	1. Presently	4	2	4	3	0	0	
	2. Near future	13	7	8	6	5	10	
14)	Working part time							
	0. No	155	86	110	85	45	88	
	1. Presently	19	11	13	10	6	12	
	2. Near future	6	3	6	5	0	0	
15)	Housewife							
	0. No	173	96	128	99	45	88	
	1. Presently	3	2	0	0	3	6	
	2. Near future	4	2	1	1	3	6	
16)	Not much of anything							
	0. No	172	96	123	95	49	96	
	1. Presently	6	3	4	3	2	4	
	2. Near future	2	1	2	2	0	0	

TABLE E
REACTIONS TO WITHDRAWAL: ALL PARENTS OF ACADEMIC DISMISSALS

	ALL STUDENTS			MALES			FEMALES			t-test males vs females
	f	%		f	%		f	%		
1) Home was notified beforehand of unfavorable academic status										
1. No	45	27		35	29		10	21		
2. Yes, warning status	36	21		29	24		7	15		
3. Yes, academic probation	88	52		58	48		30	64		
$\bar{x}$			2.25			2.19			2.43	1.63
S.D.			.85			.86			.83	
2) It was clear that the academic problem was serious										
1. No information	28	17		24	20		4	9		
2. Not very clear	48	28		34	28		14	30		
3. Very clear	93	55		64	52		29	62		
$\bar{x}$			2.38			2.33			2.53	1.58
S.D.			.76			.79			.65	
3) Recognized the seriousness of the situation early										
1. Only after final grades	56	34		45	37		11	23		
2. Last week or two	10	6		10	8		0	0		
3. Last five or six weeks	26	15		13	11		13	28		
4. For several months	77	46		54	44		23	49		
$\bar{x}$			2.73			2.62			3.02	1.75
S.D.			1.33			1.37			1.21	
4) College representatives were helpful										
1. No	86	51		65	53		21	45		
2. Somewhat	37	22		27	22		10	21		
3. Yes	46	27		30	25		16	34		
$\bar{x}$			1.76			1.71			1.89	1.23
S.D.			.85			.84			.89	
5) Feel the student made a serious academic effort										
1. No	65	38		51	42		14	30		
2. Not sure	59	35		39	32		20	43		
3. Yes	45	27		32	26		13	28		
$\bar{x}$			1.88			1.84			1.98	.98
S.D.			.80			.81			.77	

TABLE E (Cont)

	ALL STUDENTS			MALES			FEMALES			
	f	%		f	%		f	%		t-test males vs females
6) Feel the influences and environment of the college encouraged academic work										
1. No	36	21		31	25		5	11		
2. Not sure	79	47		54	44		25	53		
3. Yes	54	32		37	30		17	36		
$\bar{x}$			2.11			2.05			2.26	1.67
S.D.			.72			.75			.64	
7) Feel that the student was commited to higher education										
1. No	25	15		17	14		8	17		
2. Not sure	37	22		23	19		14	30		
3. Yes	107	64		82	67		25	53		
$\bar{x}$			2.49			2.53			2.36	1.35
S.D.			.75			.73			.76	
8) Feel that college work is of major importance to the student's future										
1. Unimportant	3	2		2	2		1	2		
2. Not sure	5	3		3	2		2	4		
3. Minor importance	19	11		9	7		10	21		
4. Major importance	142	84		108	89		34	72		
$\bar{x}$			3.78			3.83			3.64	1.90
S.D.			.58			.54			.67	
9) Home relationships are strained by the experience										
1. No	75	44		55	45		20	43		
2. Temporarily	78	46		56	46		22	47		
3. Seriously	16	10		11	9		5	11		
$\bar{x}$			1.65			1.64			1.68	.37
S.D.			.65			.64			.66	
10) Community relationships are strained by the experience										
1. No	107	63		75	61		32	68		
2. Somewhat	36	21		29	24		7	15		
3. Yes	26	15		18	15		8	17		
$\bar{x}$			1.52			1.53			1.49	.34
S.D.			.75			.74			.78	

TABLE E (Cont)

	ALL STUDENTS			MALES			FEMALES			t-test males vs females
	f	%		f	%		f	%		
11) Opportunities for further education have been affected										
1. No	55	34		39	32		19	40		
2. Somewhat	65	38		52	43		13	28		
3. Yes	46	27		31	25		15	32		
$\bar{x}$			1.91			1.92			1.89	.12
S.D.			.82			.79			.89	

Table F

TOPICAL OUTLINE
OPEN-ENDED QUESTION

	STUDENTS		PARENTS	
	WD	AD	WD	AD
A. Stated Reasons for Withdrawal				
I. Negative (going away from)				
1. Academic problems	11	16	33	21
1a. Too heavy work load (extracurricular or work for pay)	6	3	5	5
1b. Poor study habits	13	18	5	8
1c. Poor high school background	1	2	1	1
2. Dissatisfied with college				
2a. College policies and rules	36	11	7	1
2b. College personnel	12	12	8	0
2c. Social life and college climate	56	9	31	14
2d. Academic program and opportunity	76	15	18	2
2e. Type of student	31	5	1	1
2f. College location	32	2	22	1
2g. Physical plant and housing	10	3	1	3
2h. Student government	4	0	0	0
2i. Cultural opportunity	12	0	6	0
3. Personal problems				
3a. Focus on campus	2	5	27	7
3b. Focus on home	16	6	11	4
3c. Personal (without psychiatric consultation)	15	20	9	7
3d. Need for independence	7	2	2	0
3e. Lack of maturity	1	9	8	10
3f. Inability to organize for adequate study	1	8	1	4
4. Financial				
4a. Family reverses	5	0	1	0
4b. College too expensive	48	5	47	1
4c. Loss of scholarship	10	0	14	0
5. Illness				
5a. Self (including psychiatric consultation)	17	5	30	5
5b. Home	3	0	1	0
6. Lack of goals				
6a. Educational	28	30	17	5
6b. Vocational	4	4	3	3
7. Counseling	16	25	40	53

TABLE F (Cont)

	STUDENTS		PARENTS	
	WD	AD	WD	AD
II. Positive (going to)				
12. Military service	6	2	10	7
13. Romance or marriage	56	3	64	6
14. Educational program	48	0	39	1
15. Vocational program	15	1	25	1
16. Job	4	0	6	1
17. Travel	4	1	2	0
B. Stated Effects of Withdrawal				
I. Unfavorable				
20. Difficulties at home	1	3	3	3
21. Difficulties in community	3	4	0	0
22. Difficulties in further education	17	10	3	10
23. Difficulties with self	3	4	1	3
II. Favorable				
27. New maturity (including development of goals)	40	42	20	19
28. Preferred situation				
28a. Job	15	5	8	17
28b. Educational opportunity or larger school	50	10	45	11
28c. Home	6	1	3	1
28d. Military	0	2	2	4
C. Post-withdrawal Attitude Toward the College				
34. Appreciation of the research or antagonism	26	15	20	15
35. Criticism of or antagonism to the college	36	15	40	51
36. Criticism of or antagonism to individual personnel	10	5	20	17
37. Appreciation of the college	38	3	52	4
38. Appreciation of individual personnel	6	4	3	8
D. Counsel to others and general comments				
42. Consider carefully	42	21	2	0
43. Comments about colleges	2	4	5	11

TABLE G

ATTITUDE RATINGS: INTERVIEWS

Attitude Toward College

	1	2	3	4	5	6	7	8	9
Students	2	1	3	1	1	1	2	0	0
Parents	1	2	7	1	2	0	5	1	1
	(Most Favorable)		(Favorable)		(Neutral)		(Unfavorable)		(Antagonistic)

Attitude in Interview

	1	2	3	4	5	6	7	8	9
Students	8	0	1	0	1	0	1	0	0
Parents	17	2	1	0	0	0	0	0	0
	(Most Cooperative; Volunteered much)		(Responsive; some attitude of volunteering)		(Matter of fact; responded but did not volunteer)		(Barely responsive; some resistance)		(Effort to offend college or interviewer)

Attitude Toward Higher Education

	1	2	3	4	5	6	7	8	9
Students	3	2	5	0	0	0	1	0	0
Parents	8	3	6	1	1	0	1	0	0
	(Thoroughly committed; essential to future life)		(Favorable)		(Neutral; some good; some bad)		(Unfavorable)		(Antagonistic)

References

1. Cooley, W. W. & Lohnes, P. R. Multivariate Procedures for the Behavioral Sciences. New York: Wiley, 1962

2. Ford, Donald H., & Urban, Hugh B. College dropouts: successes or failures. *Educational Record*, 1965, 46, No. 2, 77-92

3. Fricke, B. G. Opinion, Attitude and Interest Survey Handbook. Ann Arbor: Evaluation and Examination Division, University of Michigan, 1963

4. Iffert, R. E. Retention and Withdrawal of College Students. Bull. 1958, 52, 17-21

5. Jax, F. B., & Merrill, R. M. Study in Persistence: withdrawal and graduation rates at University of Utah. *Personnel Guid. J.*, 1962, 40, 762-769

6. Marsh, Lee M. College dropouts--a review. *Personnel Guid. J.*, 1966, 44, 475-480

7. McClelland, D. C., et al. The Achievement Motive. New York: Appleton-Century, 1953

8. McNeeley, J. H. College Student Mortality. U. S. Office of Education, Bull. 1937, N. 11, Washington, D.C.: Govt. Printing Office, 1937

9. Miller, Leonard M. Drop Out Selected References, Bulletin 1965, 7, U. S. Office of Education, U.S. Government Printing Office, Washington, D.C. 1964

10. Pace, C. Robert. CUES, College and University Environment Scales, 1963. Educational Testing Service, Princeton, New Jersey

11. Rao, C. R. Advanced Statistical Methods in Biometric Research. New York: Wiley, 1952

12. Summerskill, J. Drop-outs from College. In Sanford, N. (Ed.), The American College. New York: John Wiley, 1962, 627-657

The original records of this study are deposited in Henry Pfeiffer Library, MacMurray College, Jacksonville, Illinois.

Biographical Data Sheet
# of the
Research Committee on Student Persistence
The Tri-College Study

The Research Office of the Tri-College Study has prepared the following questionnaire for a research project. Student responses will not become a part of the college record of the student; they will be sent directly to the Research Office. Specific instructions will be read aloud by the supervisor.

Instructions for Administration of the Biographical Data Sheet

Each of you will be asked to fill in certain information about yourself. Please use a number two, black-lead pencil. Raise your hand if you need a pencil. Do not fill out your answer sheet until instructed to do so.

Look at your answer sheet. On the lines provided you are to print your full name, last name first. Print your college. Print your home address. Be sure to list the house number and street, then the city and state. List your father's occupation and that of your mother. If your mother does not work outside the home, write "housewife." If either parent is not living, write "deceased."

Please list your plans for a major and your career plans.

This questionnaire is listed in several parts. You are to proceed without stopping until you finish. Be sure to check only one answer for each question. Questions 16, 17 and 18 in Part I should be considered as one question. There is no time limit but please work as rapidly as possible. You are to make no marks on this sheet. Blacken the appropriate spaces on the answer sheets. For example, if you are male you will blacken the space under "a" for question 1. Are there any questions?

Part I Biographical

1. Sex:

   a. Male
   b. Female

2. Age at last birthday:

   a. Under 18
   b. 18
   c. 19
   d. 20 or over

3. Where do you live while at college?

   a. College residence hall
   b. Off-campus room
   c. Fraternity or sorority house
   d. With your family

4. Size of home community:

   a. Farm
   b. Town below 2,500 population
   c. Town 2,500-25,000 population
   d. City 25,000-100,000 population
   e. City over 100,000 population

5. Type of secondary school from which you were graduated:

   a. Public school
   b. Private school
   c. Parochial school

6. Size of high school graduating class:

   a. Under 25
   b. 25-99
   c. 100-199
   d. 200-499
   e. Over 500

7. Extent of participation in high school activities:

   a. Very active in membership and in election to important offices, holding a number of important offices
   b. Above average, holding some offices
   c. Average, memberships and offices
   d. Below average in memberships and offices
   e. Little participation

8. Your impression of the percentage of your high school class who are continuing in college:

   a. 75-100%
   b. 50-75%
   c. 25-50%
   d. Below 25%

9. Father's education: (Check one)

   a. Did not complete high school
   b. Was graduated from high school
   c. Had some college work but did not graduate
   d. Was graduated from college
   e. Earned a graduate or professional degree after college

10. Mother's education: (Check one)

    a. Did not complete high school
    b. Was graduated from high school
    c. Had some college work but did not graduate
    d. Was graduated from college
    e. Earned a graduate or professional degree after college

11. Did other members of your family attend this institution? (Check one)

    a. Both parents and one or more other close relatives, including brothers, sisters, aunts, uncles
    b. One or both parents, but no other close relatives (brothers, sisters, aunts, uncles)
    c. Neither parent, but one or more others in immediate family (brothers or sisters)
    d. Other relatives, but none in immediate family (parents, brothers or sisters)
    e. None

12. I consider my relationship with my parents and family to be:

    a. Excellent
    b. Good
    c. Fair
    d. Poor
    e. Prefer to omit

13. Do you usually live with

    a. Both parents
    b. Mother
    c. Father
    d. Other relatives
    e. Other than relatives

14. Birthplace of parents:

    a. Both parents foreign-born
    b. Both parents native-born
    c. Father foreign-born
    d. Mother foreign-born

15. How often do you attend the church of your faith?

    a. Regularly (at least every other Sunday)
    b. Frequently (once a month)
    c. Occasionally
    d. Never

16. Religious preference:

    a. Baptist
    b. Catholic
    c. Christian
    d. Congregationalist
    e. Episcopal

17. a. Evangelical United Brethren
    b. Jewish
    c. Lutheran
    d. Methodist
    e. Presbyterian

18. a. Other
    b. None

19. Distance from home to educational institution:

    a. Up to 3 miles
    b. 3 to 25 miles
    c. 26 to 100 miles
    d. 101 to 500 miles
    e. Over 500 miles

20. For what portion of your college expenses are you assuming direct responsibility through work or loans?

    a. None
    b. Up to 10%
    c. 11 to 25%
    d. 26 to 50%
    e. Over 50%

21. Do you now have, or do you plan to get, a job during the academic year?

    a. Yes
    b. No

22. Plan for major:

    a. A definite plan
    b. Possible plans
    c. Undecided

23. Career plan:

    a. A definite plan
    b. Possible plans
    c. Undecided

Part II College Intentions

24. The highest level of education which you now plan.

    a. One year with no plan for continuance
    b. Two years, or possibly three, with no plan to continue to graduation
    c. Two years, or possibly three, with plans to continue professional study
    d. A full four-year degree program
    e. A bachelor's degree followed by graduate work or professional school

25. Plan for continuance in your present college vs. plans for transfer. (If you plan not to graduate, report plans for period of college study.)

    a. The plan is to take all college work in my present college
    b. The plan is not clear; either continuance in my present college or transfer is a real possibility
    c. The plan is to transfer after a year or two
    d. The plan is a combination course, with a degree from my present college (engineering, medicine, etc.)

26. The time the decision to go to college became clear to you. (Many vague plans may have preceded the time at which you felt clear about the decision. The question concerns the time that you reached clarity on the point.)

    a. Have always taken it for granted
    b. The decision became clear during elementary school years
    c. The decision became clear during junior high school years
    d. The decision became clear during high school years
    e. Cannot answer the point to my satisfaction

Part III Reasons for Going to College

Some of the reasons students give for going to college are listed below. Looking back to the period before you entered college, show the degree of importance each of the reasons had in influencing your decision to attend college. After you read a statement, mark the appropriate column on the answer sheet. For example, if the statement is "Of no importance, or does not apply" in your case, mark answer "A" on your answer sheet. If you choose to answer the statement with "Of slight importance" you should mark answer "B" on your answer sheet.

Degree or Level of Importance

A. Of no importance, or does not apply.
B. Of slight importance.
C. Of moderate importance.
D. Of great importance.

Try to record your reactions, not according to what you consider now to be "good" reasons, but according to what you feel were your reasons at the time you decided to go to college.

27. I had serious intellectual curiosities which only college could satisfy.

28. I had a compelling interest in one particular field in which I wanted to specialize.

29. I wanted to find out more about certain fields of knowledge.

30. I enjoyed studying and wanted to continue academic work.

31. I felt a college degree was necessary for the kind of work I wanted to do.

32. I wanted to prepare myself for a better paying job than I would otherwise be able to get.

33. I wanted to explore several lines of work to see what I would be most interested in.

34. I felt I could live an easier life if I had a college education.

35. I felt college acquaintances and contacts would prove advantageous in finding a position after graduation.

36. I hoped to make many new friends in college.

37. The persons I respected most in my community had gone to college.

38. I wanted to learn how to get along with other people.

39. Most of my friends were going to college.

40. I thought college life would help me to develop socially.

41. I wanted the close fellowship of living in a dormitory, sorority house, or fraternity house.

42. I thought a college education would enable me to be more influential in community affairs.

43. I thought that college would be a good place to meet the type of person I'd like to marry.

44. I hoped that college training would enable me to be a better husband or wife.

45. There was not much for me to do around home.

46. Business, church, or other community leaders encouraged me to go to college.

47. I hoped to acquire some qualifications for leadership in civic affairs.

48. It had always been expected that I would go to college.

49. My parents insisted on my going to college.

50. In my family young people had always gone to college.

CONFIDENTIAL REPORT

Research Number ______________

THE TRI-COLLEGE STUDY
RESEARCH COMMITTEE

QUESTIONNAIRE PM-1

The Research Office of the Tri-College Study has prepared the following questionnaire for a research project. The Research Committee asks the parents of the freshmen in the cooperating colleges to fill out the questionnaire and return it to the Research Office.

A self-addressed envelope is enclosed for your reply. The postage will be paid by the Research Office.

This questionnaire is answered by ☐ Father ☐ Mother ☐ Both parents

I. What level of academic work do you believe that your son will achieve? (Check one)
☐ Superior ☐ Above average ☐ Average ☐ May have difficulty

II. Students vary in their levels of commitment to higher education. Some regard it as the major opportunity offered to their age group, while others would have lower levels of commitment. How would you classify the commitment of your son? (Check one)
☐ High level of commitment ☐ Moderate level of commitment
☐ Low level of commitment

III. What importance do you as parents attach to college work for his future? (Check one)
☐ Major importance ☐ Advantageous, but hardly essential ☐ Minor importance

IV. Among the various opportunities of college life, how do you feel that your son ranks the academic opportunity? (Check one)
☐ Of first importance ☐ Equal to but not superior to other opportunities
☐ Probably secondary to other interests ☐ Probably low in rank

V. Among the various opportunities of college life, how do you as parents rank the academic opportunity for your son? (Check one)
☐ Of first importance ☐ Equal to but not superior to other opportunities
☐ Probably secondary to other interests ☐ Probably low in rank

VI. College Hopes and Plans: Please answer the following items according to your expectations for your son.

1. The highest level of education which you expect your son to achieve. (Check one)
   - ☐ One year with no plans for continuance
   - ☐ Two years, or possibly three, with no plan to continue to graduation
   - ☐ Two years, or possibly three, with plans to continue professional study
   - ☐ A full four-year degree program
   - ☐ A bachelor's degree followed by graduate work or professional school
2. Plan for continuance in the present college vs. plans for transfer. (If he plans not to graduate, report plans for intended period of college study.) (Check one)
   - ☐ The plan is to take all college work in the present college
   - ☐ The plan is not clear; either continuance in present college or transfer is a real possibility
   - ☐ The plan is to transfer after a year or two
   - ☐ The plan is a combination course, with a degree from the present college (engineering, medicine, etc.)
3. The point in time that you as parents decided it was desirable that your son would go to college. (Many vague plans may have preceded the time the decision became clear. The statement concerns the time that clarity was reached on the point.) (Check one)
   - ☐ Had always taken it for granted
   - ☐ The decision became clear during elementary school years
   - ☐ The decision became clear during junior high school years
   - ☐ The decision became clear during high school years
   - ☐ Cannot answer the point to my satisfaction

VII. Reasons for Going to College: We submitted the following list of reasons for going to college to each freshman. We wish to ask for similar reports from parents. Will you evaluate the reasons which have led you to support the college plan?

Place a "0" in the box if the statement is of no importance; a "1" if it has minor importance; a "2" if it has substantial importance; and a "3" if it has the highest level of importance.

☐ We felt that he had serious intellectual curiosities which only college could satisfy.
☐ We felt that he had a compelling interest in one particular field in which he wanted to specialize.
☐ He wanted to find out more about certain fields of knowledge.
☐ He enjoyed studying and we wanted him to continue academic work.
☐ We felt a college degree was necessary for the kind of work he wanted to do.
☐ We wanted him to prepare himself for a better paying job than he would otherwise be able to get.
☐ We wanted him to explore several lines of work to see what he would be most interested in.
☐ We felt he could live an easier life if he could have a college education.
☐ We felt college acquaintances and contacts would prove advantageous in finding a position after graduation.
☐ We hoped he would make many new friends in college.
☐ The persons we respected most in our community had gone to college.
☐ We wanted him to learn how to get along with other people.
☐ Most of his friends were going to college.
☐ We thought college life would help him to develop socially.
☐ We wanted him to have the close fellowship in living in a dormitory or fraternity house.
☐ We thought a college education would enable him to be more influential in community affairs.
☐ We thought that college would be a good place to meet the type of person we would like him to marry.
☐ We hoped that college training would enable him to be a better husband.
☐ There was not much for him to do around home.
☐ Business, church, or other community leaders encouraged him to go to college.
☐ We hoped that he would acquire some qualifications for leadership in civic affairs.
☐ It has always been expected that he would go to college.
☐ We as parents felt that we should insist that he go to college.
☐ In our family, young people have always gone to college.

CONFIDENTIAL REPORT

Research Number ____________

RESEARCH COMMITTEE
ON STUDENT PERSISTENCE
THE TRI-COLLEGE STUDY

QUESTIONNAIRE A-3

The Research Office of the Tri-College Study has prepared the following questionnaire for a research project. The accompanying letter reports the purpose of the study and the use of the returns.

PLEASE FILL OUT THE QUESTIONNAIRE AND RETURN IT TO THE RESEARCH OFFICE

A self-addressed envelope is enclosed for your reply. The postage will be paid by the Research Office.

Listed below are various reasons and factors that may have influenced your decision to withdraw from college. Some may be very significant; others may be less significant; some may have no significance. Please report your judgments concerning each item on the list by placing a check mark in the appropriate column.

	Most Significant	Less Significant	No Significance
1. Illness or physical disability (self)	____	____	____
2. Concern about illness or physical disability (family)	____	____	____
3. Concern about finances	____	____	____
4. Upset by difficulties at home	____	____	____
5. College courses were not challenging	____	____	____
6. Not interested in courses	____	____	____
7. Lack of definite plans for major	____	____	____
8. Lack of definite career plans	____	____	____
9. Lack of ability to do work required	____	____	____
10. Secondary school preparation was poor	____	____	____
11. Discouraged by low grades	____	____	____
12. The school was too big	____	____	____
13. The school was too small	____	____	____
14. Professors lacked interest in students	____	____	____
15. Professors lacked competence	____	____	____
16. Advising was inadequate	____	____	____
17. Examinations were unreasonable	____	____	____
18. I did not find enough social life	____	____	____
19. I found too much social life	____	____	____
20. My housing situation caused difficulties	____	____	____
21. Emotional problems	____	____	____
22. The students were not my type	____	____	____
23. I was homesick	____	____	____
24. I was lonely	____	____	____
25. My study habits were poor	____	____	____
26. Unreasonable college rules and regulations	____	____	____
27. Meals were extremely poor	____	____	____
28. I needed a temporary break from studies	____	____	____
29. Married recently or will be married soon	____	____	____
30. My spouse graduated	____	____	____
31. Having a baby	____	____	____
32. Other (Please comment)	____	____	____

____

____

____

Please indicate the appropriate response.

1. Prior to your withdrawal, who knew of your plans to leave college? (Check more than one if appropriate).
   ☐ Other students ☐ Family ☐ Faculty member
   ☐ Faculty advisor ☐ Not sure ☐ Resident counselor

2. Was your decision considered at length?
   ☐ Yes ☐ No, it was abrupt ☐ Hard to state definitely

3. Did college representatives give you ample assistance at the time of withdrawal?
   ☐ Yes ☐ No ☐ Limited assistance
   ☐ They had no opportunity

4. Did you plan to complete your undergraduate education at this college at the time you enrolled?
   ☐ Yes ☐ No ☐ Not sure

5. Did most of your hometown "gang" go to college?
   ☐ Yes ☐ No ☐ Not sure

6. Have your parents been satisfied with your withdrawal?
   ☐ Yes ☐ No ☐ Not sure

7. Do your parents want you to return to College?
   ☐ Desire return ☐ Oppose return ☐ Indifferent

8. Do you plan to return to this college later? (If you do plan to return to this college, a note to the Dean is encouraged).
   ☐ Yes ☐ No ☐ Undecided
   ☐ Have already returned

9. Do you plan to continue your college work elsewhere?
   ☐ Yes ☐ No ☐ Undecided
   ☐ Have already transferred

   If you have transferred, please name the college ____________________________
   ☐ Full time ☐ Part time

   9a. Do you plan some non-college training, e.g., business school, nursing, or other technical training
   ☐ Yes ☐ No ☐ Undecided
   ☐ Have already enrolled

10. If and when you resume your college education, do you think your experience after withdrawal will enable you to get more out of college?
    ☐ Yes ☐ No ☐ Not sure

11. Do you now have reasonably clear plans for the more distant future (four or more years ahead)?
    ☐ Yes ☐ No ☐ Somewhat

12. Indicate in the appropriate column what you are doing presently and your plans for the near future.

	Presently	Near Future
Working full time		
Military service		
College study		
Travel		
Working part time		
Housewife		
Not much of anything		

Other (state) ____

____

____

If you have judgments concerning this experience, they might be valuable to other students. Please comment.

CONFIDENTIAL REPORT

Research Number ____________

RESEARCH COMMITTEE
ON STUDENT PERSISTENCE
THE TRI-COLLEGE STUDY

QUESTIONNAIRE B-3

The Research Office of the Tri-College Study has prepared the following questionnaire for a research project. The accompanying letter reports the purpose of the study and the use of the returns.

PLEASE FILL OUT THE QUESTIONNAIRE AND RETURN IT TO THE RESEARCH OFFICE

A self-addressed envelope is enclosed for your reply. The postage will be paid by the Research Office.

Various reasons stand in the background of an unsatisfactory academic experience in college. The reasons are not identical among all students. The Research Committee invites your report concerning your understanding of the reasons which were effective for you.

A list of background factors is offered below. Some may be very significant; others may be less significant; some may have no significance. Please report your judgments concerning each item on the list by placing a check mark in the appropriate column.

	Most Significant	Less Significant	No Significance
1. Illness or physical disability (self)			
2. Concern about illness or physical disability (family)			
3. Concern about finances			
4. Upset by difficulties at home			
5. College courses were not challenging			
6. Not interested in courses			
7. Lack of definite plans for major			
8. Lack of definite career plans			
9. Lack of ability to do work required			
10. Secondary school preparation was poor			
11. Discouraged by low grades			
12. The school was too big			
13. The school was too small			
14. Professors lacked interest in students			
15. Professors lacked competence			
16. Advising was inadequate			
17. Examinations were unreasonable			
18. I did not find enough social life			
19. I found too much social life			
20. My housing situation caused difficulties			
21. Emotional problems			
22. The students were not my type			
23. I was homesick			
24. I was lonely			
25. My study habits were poor			
26. Too many hours given to work for pay			
27. Lack of serious effort in academic work			
28. Irregular class attendance			
29. I "dated" too much			
30. I was too active in extra-curricular activities			
31. I gave too much time to team sports			
32. Other (Please comment)			

Please indicate the appropriate response.

1. What was your academic status before your separation?
   ☐ Academic probation ☐ Warning status ☐ No unfavorable classification

2. (For those who were on academic probation and on warning status). Did the probation or warning stimulate you to increased effort?
   ☐ Yes ☐ No ☐ Temporarily

3. When did you recognize that your academic situation was serious?
   ☐ For several months ☐ Last 5 or 6 weeks ☐ Last week or two
   ☐ Only after final grades

4. In general were your best friends good students academically?
   ☐ Yes ☐ No ☐ Not sure

5. Were you ever in serious difficulty for breaking college social rules?
   ☐ Yes ☐ No ☐ Not very serious

6. Did college representatives give you ample assistance at the time of separation?
   ☐ Yes ☐ No ☐ Limited assistance

7. Do you feel that your separation from college under these circumstances significantly affected your relationships at home?
   ☐ Yes, seriously ☐ Somewhat ☐ No ☐ Only temporarily

8. Do you feel that this experience significantly affected your relationships in your home community?
   ☐ Yes, seriously ☐ No ☐ Somewhat
   (If the answer is yes, please comment)____________________________________

9. Do you feel that this experience is significantly affecting your opportunities for further education?
   ☐ Yes, seriously ☐ No ☐ Somewhat

10. If you have transferred to another institution, please name the college.
    ____
    ☐ Full time ☐ Part time

11. Indicate in the appropriate column what you are doing presently and your plans for the near future.

	Presently	**Near Future**
Working full time		
Military service		
College study		
Travel		
Working part time		
Housewife		
Not much of anything		

Other (state)____________________________________

12. **The judgments you have formed through this experience may be valuable to others. May we ask you to comment?**

CONFIDENTIAL REPORT

Research Number __________

RESEARCH COMMITTEE ON STUDENT PERSISTENCE THE TRI-COLLEGE STUDY

QUESTIONNAIRE C-1

PLEASE FILL OUT THE QUESTIONNAIRE AND RETURN IT TO THE RESEARCH OFFICE

I. Please describe the conduct which resulted in disciplinary action, as fully as you are willing to state it. A general description will suffice, if you prefer.

A. How many were involved in the disciplinary incident? (Check one).
☐ 1 (myself alone) ☐ 2
☐ 3 to 6 ☐ 7 or more

B. Had you been involved previously in serious or near-serious discipline?
☐ Yes ☐ No ☐ Minor issues

C. Was your action spontaneous (spur of the moment), or did it involve preparation (more than one step)?
☐ Quite spontaneous (unplanned)
☐ Planned in advance (more than one step)
☐ Hard to answer; some elements of both

D. Were you aware that the action risked discipline according to defined college standards?
☐ Yes ☐ No ☐ Not sure

II. The procedures and the evidence.

A. Procedures

1. In the process of reaching a decision in the matter, who considered the issue with you? (Check more than one if appropriate).
☐ Representatives of student government
☐ A faculty or administrative committee
☐ A student-faculty committee
☐ An administrative officer

B. The evidence

1. Do you know what evidence college representatives had?
☐ Yes ☐ No ☐ In part

2. Do you agree that they had the essential facts?
☐ Substantially yes ☐ Substantially no ☐ Part of the facts

3. Did you have opportunity to present evidence or your point of view?
☐ Yes ☐ No ☐ Limited opportunity

III. Counseling services in connection with the problem.

A. Was there any person associated with the college who gave you assistance in the problem?
☐ Yes ☐ No
(If the answer is yes, how was he helpful to you? Please comment).

IV. The effects of this action.

A. Do you feel that your withdrawal from college significantly affected your relationships at home?
☐ Yes, seriously ☐ No ☐ Only temporarily

B. Do you feel that this experience significantly affected your relationships in the community?
☐ Yes, seriously ☐ No ☐ Somewhat
(If the answer is yes, please comment).

C. Do you feel that this experience is significantly affecting your opportunities for further education?
☐ Yes, seriously ☐ No ☐ Somewhat

V. Indicate in the appropriate column what you are doing presently and your plans for the near future.

	Presently	Near Future
Working full time		
Military service		
College study		
Travel		
Working part time		
Housewife		
Not much of anything		
Other (state)		

VI. Various factors stand in the background of problems in conduct at college. These situations are not identical among all students. The Research Committee invites your report concerning your understanding of the factors which were effective for you.

A list of background factors is offered below. Some may be very significant; others may be less significant; some may have no significance. Please report your judgments concerning each item on the list by placing a check mark in the appropriate column.

	Most Significant	Less Significant	No Significance
1. Illness or physical disability (self)			
2. Concern about illness or physical disability (family)			
3. Concern about finances			
4. Upset by difficulties at home			
5. College courses were not challenging			
6. Not interested in courses			
7. Lack of definite plans for major			
8. Lack of definite career plans			
9. Lack of ability to do work required			
10. Secondary school preparation was poor			
11. Discouraged by low grades			
12. The school was too big			
13. The school was too small			
14. Professors lacked interest in students			
15. Professors lacked competence			
16. Advising was inadequate			
17. Examinations were unreasonable			
18. I did not find enough social life			
19. I found too much social life			
20. My housing situation caused difficulties			
21. Emotional problems			
22. The students were not my type			
23. I was homesick			
24. I was lonely			
25. My study habits were poor			
26. Unreasonable college rules and regulations			
27. I was bored			
28. The "gang" encouraged excitement			
29. I did not like college supervision			
30. Many students did the same thing			
31. I did not care much			
32. Other (Please comment)			

____

____

____

VII. The judgments you have formed through this experience may be valuable to others. May we ask you to comment?

Some think that disciplinary actions may have constructive value for the individual involved, in "waking him up", in bringing new maturity. Was there such an effect upon you?

Were there other effects which might help college officials discharge their responsibilities in such issues? Please explain.

CONFIDENTIAL REPORT

Research Number ____________

RESEARCH COMMITTEE
ON STUDENT PERSISTENCE
THE TRI-COLLEGE STUDY

QUESTIONNAIRE D-4

The Research Office of the Tri-College Study has prepared the following questionnaire for a research project. We hope that it will represent the judgment of both parents either through present or past discussions. The accompanying letter reports the purpose of the study and the use of the returns.

PLEASE FILL OUT THE QUESTIONNAIRE AND RETURN IT TO THE RESEARCH OFFICE.

A self-addressed envelope is enclosed for your reply. The postage will be paid by the Research Office.

This questionnaire is answered by: ☐ Father ☐ Mother ☐ Both Parents

1. Had you known before withdrawal that this action was being considered by your son or daughter?
   ☐ Yes, for several weeks or more ☐ Yes, for several days
   ☐ Only at time of withdrawal ☐ Only after withdrawal was complete

2. Did you have a part in the consideration of the decision (by letter, by phone, or by face to face conversation)?
   ☐ Yes, an active part ☐ Consulted before decision, but student wish was clear
   ☐ No real part until decision was final ☐ Not consulted
   Please comment____

3. Did college representatives give the student and the home ample assistance at the time of withdrawal?
   ☐ Yes ☐ No ☐ Limited assistance ☐ They had no opportunity

4. Did your son or daughter plan at the time of enrollment to complete undergraduate education at this college?
   ☐ Yes ☐ No ☐ Not sure

5. Do you as parents feel that your son or daughter derived any benefits from this limited college experience?
   ☐ Yes ☐ No ☐ Not sure

6. Have you as parents been satisfied with the withdrawal?
   ☐ Yes ☐ No ☐ Somewhat disappointed

7. Do you as parents want your son or daughter to return to college?
   ☐ Yes, desire return ☐ Oppose return ☐ Indifferent

8. Does your son or daughter plan to return to the same college later?
   ☐ Yes ☐ No ☐ Undecided ☐ Has already returned!

9. Does your son or daughter plan to continue college work elsewhere?
   ☐ Yes ☐ No ☐ Undecided ☐ Has already transferred
   If the student has transferred, please name the college ____________________
   ☐ Full time ☐ Part time

   9a. Does your son or daughter plan some non-college training, e. g. business school, nursing, or other technical training.
   ☐ Yes ☐ No ☐ Not sure ☐ Has already begun such training

10. The judgments you have formed through this experience may be valuable to others. Hence, we would appreciate any comments from you. (Use reverse side.)

CONFIDENTIAL REPORT

Research Number ____________

RESEARCH COMMITTEE
ON STUDENT PERSISTENCE
THE TRI-COLLEGE STUDY

QUESTIONNAIRE E-4

The Research Office of the Tri-College Study has prepared the following questionnaire for a research project. We hope that it will represent the judgment of both parents either through present or past discussions. The accompanying letter reports the purpose of the study and the use of the returns.

PLEASE FILL OUT THE QUESTIONNAIRE AND RETURN IT TO THE RESEARCH OFFICE.

A self-addressed envelope is enclosed for your reply. The postage will be paid by the Research Office.

This questionnaire is answered by: ☐ Father ☐ Mother ☐ Both Parents

1. Was the home notified before the action was taken of any academic status which was unfavorable?
   ☐ Yes, academic probation ☐ Yes, warning status ☐ No
2. How clear was it to you through grades or a letter from the college that academic work was bringing serious problems?
   ☐ Very clear ☐ Not very clear ☐ No information
3. When did you recognize that the academic situation was serious?
   ☐ For several months ☐ Last 5 or 6 weeks
   ☐ Last week or two ☐ Only after final grades
4. At the time of the withdrawal were college representatives helpful to you as parents, either through conference or correspondence?
   ☐ Yes ☐ No ☐ Somewhat
   Comment, if you will.
   ____
   ____
   ____
   ____
5. Do you feel that the student made a serious academic effort?
   ☐ Yes ☐ No ☐ Not sure
6. Do you feel that the influences and environment of the college encouraged serious academic work?
   ☐ Yes ☐ No ☐ Not sure
7. Do you feel that the student was committed to higher education as the major opportunity for his life after high school years?
   ☐ Yes ☐ No ☐ Not sure
8. Do you as parents feel that college work is of major importance for this young person's future?
   ☐ Of major importance ☐ Of minor importance ☐ Unimportant ☐ Not sure
9. Have home relationships become strained by this experience?
   ☐ Yes, seriously ☐ Somewhat ☐ No ☐ Only temporarily
10. Have relationships in your home community become more difficult for the young person by this experience?
    ☐ Yes ☐ No ☐ Somewhat
11. Have opportunities for further education been affected?
    ☐ Yes, seriously ☐ No ☐ Somewhat
12. Will you inform us about the activities of your son or daughter since the withdrawal? If the student has transferred, please name the college. ______________________________
    ☐ Full time ☐ Part time
13. The judgments you have formed through this experience may be valuable to others. Hence, we would appreciate any comments from you.

    Some think that such experience may have constructive value for the individual involved in "waking him up", in bringing new maturity. Some may feel that there are ways through which colleges could anticipate and avoid these problems. You may have further judgments. (Use reverse side.)

CONFIDENTIAL REPORT

Research Number ___________

RESEARCH COMMITTEE
ON STUDENT PERSISTENCE
THE TRI-COLLEGE STUDY

QUESTIONNAIRE F-1

The Research Office of the Tri-College Study has prepared the following questionnaire for a research project. We hope that it will represent the judgment of both parents either through present or past discussions. The accompanying letter reports the purpose of the study and the use of the returns.

PLEASE FILL OUT THE QUESTIONNAIRE AND RETURN IT TO THE RESEARCH OFFICE.

A self-addressed envelope is enclosed for your reply. The postage will be paid by the Research Office.

This questionnaire is answered by: ☐ Father ☐ Mother ☐ Both Parents

1. Are you satisfied that college officers had the essential facts concerning this problem?
   ☐ Substantially yes ☐ Substantially no ☐ Part of the facts
2. Are you satisfied that reasonable procedures were used in the consideration of the matter?
   ☐ Substantially yes ☐ Substantially no ☐ In part
3. At the time of the withdrawal were college representatives helpful to you as parents, either through conference or correspondence?
   ☐ Yes ☐ No ☐ Somewhat
   Comment, if you will.
   ____
   ____
   ____
   ____
4. Have home relationships become strained by this experience?
   ☐ Yes, seriously ☐ No ☐ Only temporarily
5. Have community relationships become more difficult for the young person by this experience?
   ☐ Yes ☐ No ☐ Somewhat
6. Have opportunities for further education been affected?
   ☐ Yes, seriously ☐ No ☐ Somewhat
7. The judgments you have formed through this experience may be valuable to others. Hence, we would appreciate any comments from you.

   Some think that disciplinary actions may have constructive value for the individual involved, in "waking him up", in bringing new maturity. Was there such an effect upon your son or daughter? Were there other effects which might help college officials discharge their responsibilities in such issues? (Use reverse side.)